Best Practices Involving Teamwork in the Classroom: Results From a Survey of 6435 Engineering Student Respondents

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***Abstract*—A teamwork survey was conducted at Oakland University, Rochester, MI, in 533 engineering and computer science courses over a two-year period. Of the 6435 student respondents, 4349 (68%) reported working in teams. Relative to the students who only worked individually, the students who worked in teams were significantly more likely to agree that the course had achieved its stated learning objectives ($p < 0.001$). Regression analysis showed that roughly one-quarter of the variance in belief about whether the objectives were met could be explained by four factors: 1) student satisfaction with the team experience; 2) the presence of instructor guidance related to teamwork; 3) the presence of slackers on teams; and 4) team size. Pearson product–moment correlations revealed statistically significant associations between agreement that the course objectives had been fulfilled and the use of student teams and between satisfaction with teams and the occurrence of instructor guidance on teamwork skills. These and other results suggest that assigning work to student teams can lead to learning benefits and student satisfaction, provided that the instructor pays attention to how the teams and the assignments are set up.**

***Index Terms*—Correlation, evaluation, instructor, satisfaction, student, team, teamwork.**

I. Introduction

RESEARCH studies on teamwork are often geared towards making teams more effective or determining whether teamwork is effective in helping students learn [1]–[4]. Only a few relatively small-scale studies have attempted to determine which aspects of teamwork appear to be most important or useful [5]–[9]. This study is the first in a series of studies designed to identify optimal conditions for teamwork in an academic setting. Data correlations obtained over a two-year period have been used to form hypotheses and design experiments for further study.

II. Background

Oakland University is a public university in Rochester, MI. In fall 2005, the university had 17 339 students, 1664 of whom were enrolled in engineering and computer science programs. In the engineering student population, 66% were undergraduate. Of these undergraduates, 83% were male and 17% female. Whites formed 73% of the undergraduate population, African Americans 8.3%, Native Americans 0.4%, Asians 6%, Hispanics 2%, international students 2%, with the remaining 7% not listed. Whites formed 52% of the undergraduate population, African Americans 2%, Native Americans 0.2%, Asians 10.6%, Hispanics 1%, international students 21%, with the remaining 4% not listed. The average ACT score of incoming freshmen was 21.5, and the average high school grade point average was 3.2. Oakland University is a largely commuter campus—only 10% of the overall student body lives in dormitories.

Oakland's School of Engineering and Computer Science administers a course-end survey asking the students to rate their teacher's effectiveness and how well they feel they have accomplished the course objectives, among other items. This survey includes the items shown in Table I. Although filling out the survey at the end of each course is voluntary, all students are strongly encouraged to participate, and approximately 60% do so. The survey has been online for the past five years.

Two years ago, seven questions related to teamwork (Table II) were added to the survey. The two-year period of the study encompassed the 14-week fall and winter semesters and the seven-week spring and summer semesters of both 2004 and 2005. Altogether, 533 courses, ranging from freshman to graduate level, were evaluated using the augmented questionnaire. In the end, 6435 responses to the teamwork questions were received. Because many students enroll in three to four courses during a semester, some engineering students may have responded to the survey several times in each term, once for each of their courses.

Self-enumerated surveys are widely accepted in social science research, with applications that include population census collection and quality of life surveys in medicine. Challenges in using self-enumerated surveys include ensuring that the completed surveys are representative of the target population, obtaining surveys that contain no missing data, ensuring effective response rates, and reducing the sample bias that can occur when surveys are voluntary.

The nature of Oakland's survey system mitigates many of these common challenges. The survey was designed for a large population, and the questions and choices were brief, with minimal ambiguity to avoid bias caused by question interpretation. Moreover, because the surveys were computerized, all surveys submitted contained valid categorical responses. Access to the

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TABLE I
GENERAL EVALUATION QUESTIONS ($0 = \text{Unsatisfactory}, 1 = \text{Poor}, 2 = \text{Average}, 3 = \text{Good}, 4 = \text{Excellent}$)

1. The instructor's ability to motivate me to do my best work is ________________.
2. The instructor's willingness to provide individual assistance to students outside of classroom hours is ________________.
3. My overall rating of the teacher is that he or she is ________________.
4. My overall rating of this course as a learning experience is ________________.
5. The degree to which this course achieved its stated objectives is ________________. †

† In actuality, each instructor supplies between a half-dozen and a dozen objectives for his or her course, for example: "Be able to explain the Law of Conservation of Energy in terms that a high school student could understand," or "Use Ohm's Law to solve for voltage, current, or resistance in various parts of an electrical circuit." Each student rates the degree to which he or she felt he or she achieved each objective. The average rating for all objectives forms the synthesized question 5 shown above.

TABLE II
TEAMWORK SURVEY QUESTIONS

1. Did your instructor have you work in teams of two or more in this class?
   - No, we did not work in teams
   - Teams of two
   - Teams of three or more
2. Overall, how satisfied were you with your experience with teams in this class?
   - Very satisfied
   - Somewhat satisfied
   - Neutral
   - Somewhat dissatisfied
   - Very dissatisfied
   - Not applicable (Did not work with teams in this class)
3. What type of guidance did you receive from your instructor in this class to help you with your team activities?
   - A lot—the instructor guided the class as to how to structure the teams, and evaluated the functioning of the teams as the semester progressed.
   - Some—the instructor gave us some initial guidance, and then turned us loose.
   - None—we were told to get together and work in teams, and that was all.
   - Not applicable.
4. Did your instructor/TA (not students) select the team members for at least one of your teams?
   - Yes
   - No
5. If a student on your team did little or no work on an assignment, were you provided the option of not including that student's name on the finished report?
   - Yes
   - No
6. Did you have the option of firing a person from your team? (Just the option—you didn't have to have fired anyone.)
   - Yes
   - No
7. Did you have one or more people on your team who you thought did not pull their weight?
   - No
   - Yes, one person
   - Yes, two people
   - Yes, three people

survey was given only to students who have enrolled in an engineering course. All of these students have access to a computer and the Internet at school, and most have access at home. Instructors are strongly encouraged to require their students to complete the surveys, or to provide motivation in the form of extra credit. Students are also directly encouraged to complete the surveys, and are given the means to evaluate an instructor even if the instructor does not provide access to the evaluation system. All of these steps contributed significantly to the 60% student response rate, far larger than the 10%–30% response rate that characterizes most voluntary surveys. A 60% return rate is in fact usually considered by statisticians sufficient to make sample bias negligible.

III. STUDY DESIGN

The online evaluation system includes a broad range of variables that may have an impact on teamwork effectiveness. By default, the students must identify the course level (freshman, sophomore, etc.), the department offering the course (mechanical, electrical, computer, etc.), and the term in which the course was taught (fall, winter, spring, or summer). Beyond these default classification variables, students were also able to report factors such as the level of instructor guidance related to teams; whether the instructor, as opposed to the students themselves, had selected the members of the team; and the ability to sanction uncooperative team members. Using the online system, the students also gave quantitative ratings of the instructors and course outcomes from responses to the questions listed in Table I, as well as quantitative ratings of satisfaction with teams from question 2 of Table II. These classifications became the variables used in this study. Section IV-A below provides an overview of the raw data analysis from the questions in Tables I and II.

Pearson's product–moment correlation was used to identify similarities among patterns of responses to different items. Section IV-B describes the cross-correlation of all survey-derived outcome measures.

TABLE III
PRINCIPAL SURVEY RESULTS

Item	Results	N
Work in teams	Yes: 68% No: 32%	6435
% of class working in teams	100%: 235 classes , 85–99%: 53 classes, 1–84%: 112 classes , 0%: 133 classes	4349
Team size	$\leq$2: 33% $\geq$3: 67%	4349
Disciplines of courses using teams	Computer Eng: 36% , Elect. Eng: 19% , Mech. Eng: 34% , Syst. Eng: 11%	4349
Academic levels of students working in teams	Freshman: 14% , Sophomore: 15% , Junior: 23% , Senior: 25% , Graduate student: 22%	4349
Instructor guidance on teamwork	None: 20% , Some: 50% , Great deal: 30%	4349
Team formation	Instructor formed: 33% , Self-selected: 67%	4349
Option to omit names of slackers from completed group assignments & projects	Yes: 58% No: 42%	4349
Option to fire slackers	Yes: 50% No: 50%	4349
Number of reported slackers on teams	0: 71% , 1: 21% , 2: 6% , $\geq$3: 1.4%	4349
Slackers reported by course level	Freshman: 37% , Sophomore: 36% , Junior: 28% , Senior: 30% , 1st-yr Grad: 18% , 2nd-yr Grad: 13%	4349

Of primary interest were four outcome variables: student satisfaction with teams, students' belief that they had fulfilled the course objectives, student satisfaction with the course as an overall learning experience, and student satisfaction with their instructor. Analysis of variance (ANOVA) was used to determine significant differentiating factors with regards to students' satisfaction with teams (Table II, question 2). These results are presented in Section IV-C.

The question regarding the students' satisfaction with teams had a Likert five-point scaled response ranging from zero to four. For each response to the other questions listed in Tables I and II (e.g., "None," "Some," and "A Lot" in question 3 about the degree of instructor guidance), the mean response to the question about satisfaction with teams was computed. For the "Instructor Guidance" question, for example, the means were 2.73 (no guidance), 3.06 (some guidance), and 3.48 (a lot of guidance).

As part of the ANOVA, F-Tests with pooled variance were used to evaluate whether differences in the mean response to the satisfaction with teams question were significantly different between the response groups. To ensure that variance pooling was justified, Levene's Test for Equal Variances was performed. The null hypothesis was: *there is no difference in the mean satisfaction between the different groups* and the alternative hypothesis was: *the means were different*. A p-value of 0.001 or less led to rejection of the null hypothesis and indicated that the factor under consideration affected the degree to which students were satisfied with teams. In the case of the instructor guidance question, for example, the p-value was less than 0.001, indicating that the level of instructor guidance affected the degree of student satisfaction with teams. Unlike Pearson's product–moment correlation, which was used to identify *similarities* among responses to different items, ANOVA pointed out factors such as instructor guidance that reliably *differentiated* between lower and higher student team satisfaction ratings.

An ANOVA was also used to study the relationship between students' satisfaction with teams and their belief that the course objectives were met. This analysis is shown in Section IV-D. For this part of the study, students who did not work in teams were placed into a "No Teams" group and students who worked in teams were subdivided into two groups: "Low Satisfaction" if they responded with a rating of 2.5 or below to the question about their satisfaction with teams, and "High Satisfaction" if their response was above 2.5. Scheffe's test was used to evaluate whether the mean responses to the question about the course objectives differed significantly among these three groups.

Regression analyses were then performed to determine the principal factors accounting for the response variances for the questions about fulfillment of course objectives, rating the course as an overall learning experience, and rating the instructor. The results are presented and discussed in Section IV-E.

All analyses were performed using software for Statistical Processing for Social Science (SPSS) made by SPSS, Inc., Chicago, IL [10].

IV. Results

A. Raw Data

The principal results of the survey are summarized in Table III. There were no statistically significant differences between the results obtained from each of the four disciplines (electrical, mechanical, computer, and systems), which suggests that these findings may be broadly applicable to other engineering disciplines. The term "slacker" in the last three items refers to a student who was rated by the survey respondent as making an insignificant contribution to the team effort—"not pulling his/her weight."

B. Pearson Correlations

Table IV provides the cross-correlation of all survey-derived outcome measures. For teamwork-related questions, the results were based only on responses from students who reported working in teams, while for other questions all student responses were included. Because of the large number of respondents, even relatively low correlation coefficients were statistically significant. The significant correlations were further classified as "strong" ($|r| > 0.6$), "moderate" ($0.4 \leq |r| \leq 0.6$), or "weak" ($|r| < 0.4$).

Several correlations suggest that students who had good team experiences were apt to give the course higher ratings than students whose team experiences were negative. Ratings of satis-

TABLE IV
PEARSON CORRELATIONS (r) (AGGREGATED BY CLASS LEVEL)

	Satisfaction with teams	Instructor guidance	Instructor selected teams?	Exclude slackers/ Authorship	Could slackers Be Fired?	Anybody not pull their weight? (% Yes)	Overall rating as a teacher	Overall rating of this course as a learning experience	Overall rating - course objectives
Satisfaction with teams	1.00	0.23	-0.17	0.11	0.10	-0.44	0.34	0.32	0.36
Instructor guidance		1.00	0.25	0.10	0.11	-0.03	0.43	0.46	0.36
Instructor-selected teams?			1.00	0.05	0.00	0.32	0.08	0.11	0.03
Exclude slackers from authorship?				1.00	0.73	0.09	0.14	0.13	0.08
Could slackers Be fired?					1.00	0.07	0.18	0.16	0.10
Anybody not pull their weight? (% Yes)						1.00	0.01	0.08	0.05
Overall rating as a teacher							1.00	0.85	0.74
Overall rating of course as a learning experience								1.00	0.70
Overall rating – met course objectives									1.00

faction with teams were weakly correlated with belief that the course objectives had been met ($r = 0.36$), ratings of the course as a learning experience ($r = 0.32$), and ratings of the instructor ($r = 0.34$). The strongest observed correlation with team satisfaction was the moderate negative one with the presence of at least one slacker on the team ($r = -0.44$). Weak positive correlations were found between satisfaction with teams and the provision of instructor guidance on teamwork ($r = 0.23$) and the abilities to exclude slackers from authorship on assignments ($r = 0.11$) and to fire slackers ($r = 0.10$). The latter two correlations, while statistically significant, are too small to justify drawing any conclusion about those effects.

The weak correlations between team satisfaction and instructor-formed teams ($r = -0.17$) and between instructor-selected teams and the reported presence of slackers ($r = 0.32$) suggest that students on self-selected teams are likely to have a better experience than students on instructor-formed teams. The issue of instructor-formed teams versus self-selected teams is complex, however, and that conclusion would be unwarranted. The arguments for instructor formation have to do primarily with the student product quality and skill development that result from forming teams with diversity in abilities; indeed, there was a very weak but positive correlation ($r = 0.11$) between instructor formation and the students' ratings of the course as a learning experience. The lower frequency of reported slackers on self-selected teams probably reflects a decreased tendency to give low ratings to one's friends.

None of the proponents of instructor formation suggest that instructor formation will make students happier, and the fact that it did not do so in this study is not particularly surprising. If there is a lesson to be learned from the correlations, it is that instructors who form teams themselves might anticipate more interpersonal conflicts within teams than self-selected teams might experience, and should take care to provide the teams with guidance on how to avoid conflict and deal with conflict constructively when it arises [11], [12].

Although the seminal study "The Initial Knowledge State of College Physics Students," by Halloun and Hestenes [13] showed that the knowledge attained in a course was independent of the instructor, the data set used in the present study showed very strong correlations between overall rating of the course as a learning experience, overall rating of completion of course objectives, and the rating of the teacher. Thus, regardless of how well the students might actually have learned the material, the students' *perceptions* of how well they learned appeared to be strongly related to the instructor's perceived teaching skills. This finding may have important implications for retention [14].

C. Student Satisfaction With Teams

Of the 4305 students who reported on their degree of overall satisfaction with their team, 49% were very satisfied ($\text{rating} = 4$), 27% somewhat satisfied, 12% neutral, 7% somewhat dissatisfied, and 4% very dissatisfied ($\text{rating} = 0$). The average level of satisfaction increased monotonically with the level of the course, ranging from a low of 2.93 on a four-point scale for freshman courses to a high of 3.29 for second-year graduate courses (Table V).

ANOVA showed that the following characteristics of teamwork implementation had significant effects on satisfaction with teams:

- course level $\text{p} < 0.001$, $\text{F} = 6.54$, $\text{df} = (5, 2165)$;
- level of instructor guidance on teamwork $\text{p} < 0.001$, $\text{F} = 72.02$, $\text{df} = (2, 2098)$;
- ability to exclude slackers from authorship of assignments $\text{p} < 0.001$, $\text{F} = 67.42$, $\text{df} = (1, 2169)$;
- ability to fire slackers $\text{p} < 0.001$, $\text{F} = 74.5030$, $\text{df} = (1, 2169)$;
- number of slackers on the team $\text{p} < 0.001$, $\text{F} = 232.75$, $\text{df} = (3, 2167)$.

The means of the "satisfaction with teams" question of the groups described above are provided in the tables given below.

The level of instructor guidance was strongly related to team satisfaction, as shown in Table VI. Significant differences in

TABLE V
SATISFACTION WITH TEAMS ($0 = \text{very dissatisfied}, 4 = \text{very satisfied}$) BY COURSE LEVEL ($N = 4305$)

Course Level	% of Responses	Mean Rating	Std. deviation
Freshman	14%	2.93	1.16
Sophomore	15%	2.94	1.19
Junior	24%	3.07	1.09
Senior	25%	3.22	1.09
Graduate (1st year)	19%	3.24	1.07
Graduate (2nd year)	3%	3.29	1.07
Total Data Set	100%	3.11	1.12

TABLE VI
SATISFACTION WITH TEAMS BY AMOUNT OF INSTRUCTOR GUIDANCE ($N = 4180$)

Instructor guidance	% of responses	Mean Rating	Std. dev.
None	20%	2.73	1.30
Some	50%	3.06	1.11
A lot	30%	3.48	0.84
Total	100%	3.12	1.11

TABLE VII
SATISFACTION WITH TEAMS BY ABILITY TO EXCLUDE SLACKERS FROM AUTHORSHIP ($N = 4305$)

Able to exclude?	% of responses	Mean rating	Std. dev.
No	41%	2.93	1.20
Yes	59%	3.23	1.04
Total	100%	3.11	1.12

TABLE VIII
SATISFACTION WITH TEAMS BY ABILITY TO FIRE SLACKERS ($N = 4305$)

Able to Fire?	% of responses	Mean rating	Std. dev.
No	50%	2.94	1.20
Yes	50%	3.27	1.01
Total	100%	3.11	1.12

TABLE IX
SATISFACTION WITH TEAMS (ON A SCALE OF 0 TO 4) BY NUMBER OF "SLACKERS" ON TEAM ($N = 4305$)

Number of slackers	% of responses	Mean rating	Std. dev.
0	71%	3.43	0.85
1	21%	2.51	1.23
2	6%	1.80	1.32
≥3	1.4%	1.60	1.50
Total	100%	3.11	1.12

student satisfaction were also observed by giving the students the option of leaving slackers' names off completed assignments (Table VII) and firing them (Table VIII). The presence of slackers had a clear connection with satisfaction, with the average satisfaction ranging from 3.4 among students with no reported slackers on their teams to less than 2.0 for students reporting two or more slackers (Table IX).

D. Meeting Course Objectives

The relationship between students' perceptions that the course objectives had been met and their satisfaction with teams is shown in Table X. According to the results from Sheffe's test, the difference between those students who were highly satisfied with their teams and those who were not in a team was significant ($p < 0.001$). Students who had low satisfaction with their teams had similar mean scores as those without teams.

TABLE X
STUDENTS' SELF-ASSESSMENT OF MEETING COURSE OBJECTIVES BY LEVEL OF SATISFACTION WITH TEAMS

	Section Count	Mean	Std. Deviation
No Teams	163	4.02	0.57
Low Satisfaction Teams	91	4.08	0.45
High Satisfaction Teams	85	4.31	0.38
Total	339	4.11	0.51

Table XI shows a regression analysis of the students' perceptions of meeting the course objectives. The results suggest that students were more likely to perceive a course as being effective if they were satisfied with their team experience, they got guidance on teamwork from their instructor, they had no slackers on their team, and their team included at least three or four people rather than consisting of only a pair.

E. Student Satisfaction With the Course and Instructor

Tables XII and XIII show regressions on the dependent variables "Overall rating as a teacher" and "Overall rating of the course as a learning experience," respectively. In each case, three key factors emerged.

Again, students' perception of the course and the instructor increased with their satisfaction with the team experience, the level of instructor guidance on teamwork, the absence of slackers (course rating), and the provision of measures to deal with slackers (instructor rating).

V. SUMMARY AND CONCLUSION

There are compelling reasons for assigning students to work in teams on homework and projects. Several well-known educational theories support the idea that students learn most effectively through interactions with others, most notably a social interdependence theory that derives from the work of Lewin and others [15]–[17] and was extended into classroom practice by David and Roger Johnson [1], [18], and a social constructivist theory generally attributed to Vygotsky [19]. Smith *et al.* [18] observed that hundreds of empirical research studies and several meta-analyses of the research (e.g., [2]–[4]) have compared the relative efficacy of cooperative, competitive, and individualistic learning, with the overwhelming body of evidence indicating that cooperative learning leads to significant gains in academic success, quality of interactions with both classmates and faculty members, and attitudes toward the college experience.

This is not to say that cooperative learning is without problems. Initial resistance to team-based approaches from individual students is quite common and can be discouraging to faculty members who do not expect it and are not equipped with strategies to defuse it [20]. Moreover, students are not born knowing how to work effectively in teams, and if a flawed or poorly implemented team-based instructional model is used, dysfunctional teams and conflicts among team members can

TABLE XI
REGRESSION ANALYSIS OF STUDENT PERCEPTIONS THAT THE COURSE OBJECTIVES HAD BEEN MET

	Beta	Proportionate Weight
Satisfaction with teams	0.37	0.425
Instructor guidance	0.25	0.290
Anybody not pull their weight?	0.13	0.150
Team size	0.12	0.135
PERCENT VARIANCE EXPLAINED (R^2)		23.60%

TABLE XII
REGRESSION—PREDICTING/EXPLAINING "OVERALL RATING AS A TEACHER"

	Beta	Proportionate Weight
Instructor Guidance	0.36	**0.505**
Satisfaction with Teams	0.24	**0.336**
Could Slackers Be Fired?	0.11	**0.159**
PERCENT VARIANCE EXPLAINED (R^2)		**25.30%**

TABLE XIII
REGRESSION—PREDICTING/EXPLAINING "OVERALL RATING: COURSE AS A LEARNING EXPERIENCE"

	Beta	Proportionate Weight
Instructor guidance	0.39	**0.422**
Satisfaction with teams	0.33	**0.355**
Anybody not pull their weight?	0.20	**0.223**
PERCENT VARIANCE EXPLAINED (R^2)		**28.40%**

lead to an unsatisfactory experience for instructors and students alike [11], [12]. The results of this study help shed light on things an instructor can do to minimize the likelihood of problematic team situations.

The data support the following inferences.

- *The use of teams for assignments in courses at Oakland University is widespread.* More than half of the engineering classes at Oakland appear to have some mandatory teamwork element, and 68% of student respondents indicated that they used teams in their classes. These percentages reflect the widespread interest in teamwork by Oakland's engineering faculty after a small original core group of instructors proved teamwork's effectiveness and trained others in the techniques (Table III).
- *Working in teams was positively associated with students' self-assessed quality of learning.* Students' perception of the degree to which they fulfilled the course objectives was positively correlated with whether teamwork was required in the course (Table IV).
- *The ability to omit the names of uncooperative team members from assignments and to fire them as a last resort had the strongest association with student satisfaction of all the factors directly under the instructor's control.* If these options are offered, the procedures that the students must follow to exercise them should be carefully spelled out at the beginning of the course [11], [12] (Table IV).
- *Guidance from the instructor on effective teamwork had a significant effect on promoting student satisfaction with their team experience.* An excellent sourcebook for such guidance is Smith [18], and other suggestions are given by Felder and Brent [11] and Oakley *et al.* [12] (Table IV).
- *From the standpoint of student satisfaction, team assignments worked very well.* Nearly 90% of the students surveyed were either satisfied or neutral about their work on teams, and nearly half were very satisfied. Student satisfaction with teams increased as students advanced in the curriculum, which may relate to student maturation and/or the loss of some less mature or less motivated students through attrition (Table V).
- *Guidance from the instructor on how to work effectively in teams appeared to make a substantial difference in student satisfaction* (Tables IV and VI). This finding clearly relates to the correlation between student satisfaction with their teams and student rating of the effectiveness of the instructor. Effective instructors are, in fact, more likely than ineffective ones to provide team-building guidance.

VI. RECOMMENDATIONS FOR FURTHER STUDY

Several ideas for continuing research are suggested by the results of this study. Following are several questions that might profitably be explored.

- Relative to self-selected teams, instructor-formed teams appear to be more likely to experience interpersonal conflict and somewhat more likely to learn more from their team experience. What conditions influence the nature and extent of the tradeoff? Can suitable instructor guidance assure that instructor formation of teams is always desirable? What kind of guidance? Would self-selection be more or less appropriate for students with experience in teams?
- What makes slackers behave as they do? What instructor actions and teammate actions (including formal peer ratings that affect individual grades for team assignments) are effective at changing their behavior? Is being left off an assignment or being fired likely to change the behavior in subsequent team experiences?
- Does team size affect student satisfaction with teams? What are the effects of team size on the incidence of slackers and other sources of interpersonal conflict?

- How does the performance on individual tests of members of smoothly functioning teams compare with the performance of members of teams with slackers?

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