

Are Two Hands Better than One? : An Instructor's Dilemma

Swati Soni¹, Lokesh Vijayvargy²

^{1,2} Faculty Member, Jaipuria Institute of Management, Jaipur, India
Email: ¹swati.soni@jaipuria.ac.in, ²lokesh.vijayvargy@jaipuria.ac.in

ABSTRACT

The corporate world needs a host of skills and its incumbent upon the B-schools to impart the same to the managers in the making. Team work, collaboration, decision making, leadership, communication, social skills and many more are the workplace norms today. Groups are high on productivity, creativity, and motivation when compared with than individuals working independently. Group projects therefore have assumed importance in a management education setting. Therefore, the paper proposes to study the factors affecting social loafing in group projects to enhance effective learning. The research proposes to put forth a model of learning through group projects. It makes recommendations towards a better project and group design so that free-riding gets minimized and learning is ensured for all the group participants.

Keywords

mental health, Dilemma

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

Introduction

Positive group experiences lead to higher learning, more retention of learned concepts and greater chances of overall success (Astin, 1997; Tinto, 1998; National Survey of Student Engagement, 2006). Contrastingly, with all the inherent advantages, there are inherent challenges accompanying group projects. The paper addresses Social Loafing as a phenomenon in a group setting that requires the attention of the instructors. It is a common observation that individuals invest considerably less energy and effort when in a group setting than they do if they were to work all alone. This phenomenon of reduction in efforts when people are collectively responsible for a task is termed as Social Loafing by Harkins, Latane and Williams (1980). Consequently, the instructor may thus fail to achieve to achieve the intended objectives if free-riding exists in a group setting. Simultaneously, it could also be a cause of frustration for conscientious students, who contribute meaningfully but still see the free-riders scoring as high as them, and even more than them in many cases.

It is a common observation that individuals expend less effort when they work together than when they work alone. This phenomenon of reduction in efforts when people are collectively responsible for a task is termed as Social Loafing by Harkins, Latane and Williams (1980). It is observed in tasks that require both physical work

(clapping: Harkins, Latane, & Williams, 1980) and cognitive effort (brainstorming and vigilance: Harkins & Petty, 1982) for both the genders. Social loafing offers a widely accepted explanation for productivity losses in groups (George, 1992). Harkins, Latane and Williams have gone to the extent of proposing that social loafing is a social disease that is detrimental to individuals, organizations and societies. In 1981, Williams, Harkins and Latane conducted 'shouting experiments' and pre-informed the participants that their outputs are identifiable and measurable, despite it being a group task. No evidence of loafing was found when the participants were knew that their outputs are measurable-they shouted as loud in the group as they would have if they shouted alone. This experiment strengthened the 'identifiability hypothesis' and proposed that if the individual outputs are measurable in a group setting and are also attributable on an individual basis, equity in individual efforts is achieved. In such situations, the participants know and understand that they cannot either "hide in the crowd" for a lesser output and avoid the blame and also not get "lost in the crowd" for a superlative output and shall command a fair share of the credit too. Motivation to contribute is low because the perceived relationship between individual effort and rewards is weak (Jones, 1984). This is a rather extrinsic explanation of social loafing.

Jones (1984) discussed the dimension of task visibility. In the laboratory experiments where the

subjects are pre-informed about the identifiability of outcomes, social loafing does not occur. In lab conditions, identifiability is a controlled absolute, but actual work situations are different. Actual work situations present something called as perceived task visibility—a belief that the supervisor knows and understands the efforts an individual invested in a job. Jones (1984) asserts that perceptions of perceived task visibility vary across workers and this influences social loafing. Low perceived task visibility is accompanied by a belief that the supervisor cannot identify or ascertain individual efforts and hence low efforts shall not be followed by penalties and similarly high efforts shall not be followed by commendation. If outcomes have no negative or positive consequences to follow, there is meager motivation to expend efforts. Contrarily, when perceived task visibility is high, the subjects are conscious of the efforts that they invest because their outcomes are identifiable and measurable and shall be followed by consequences. This approach offers an intrinsic explanation for social loafing.

Social Loafing-A Trans Situational Generality

Social Loafing is a ubiquitous phenomenon which finds a manifestation in multiple spheres and mentioned by various experimenters. Marriott (1949) and Campbell (1952) have demonstrated that per person productivity among factory workers is higher in smaller groups and vice versa. Latany and Darley (1970) found that the probability that a bystander assigned to a worker to intervene and help in difficult task reduces substantially when more bystanders are added to the work situation. The phenomenon is commonplace even in religious organizations. Wicker (1969) observed that larger churches have a lesser proportion of people of the community attending the events, as the responsibility is diffused among more members. Similarly, in editorial jobs, people were found to have exerted less cognitive effort when they were amidst a group of other unidentifiable evaluators than when they were alone responsible for the completion of the task (Petty, Harkins, Williams and Latane, 1977). These experiments from different walks of life offer a clear evidence that propensity for social loafing exists in human nature.

Group Projects and Social Loafing

Management education supposedly prepares students for a corporate life. The pedagogy and assignments thus should be pseudo-workplace projects, simulating a workplace like situation in order to inculcate workplace like skills set (McCorkle et al., 1999). For the purpose of study, we define group work as “a graded assignment requiring students to work collaboratively across multiple class periods and involving some time outside the normal class meeting” (Ettington and Camp, 2002: 357). Collaboration is a valued corporate skill and research has shown that corporates prefer team players to solo star performers and it also translates into better coping and survival at workplace for a new incumbent (Aggarwal and O’Brien, 2008; Hansen, 2006).

Group projects are an important teaching, learning and evaluation tool. The shift from rote-learning methods to experiential learning styles, coupled with the shift from teacher-centered learning to student-centered learning, has given an impetus to group projects in a management education setting (Allen et al., 2006). Besides this, a feedback from recruiters suggests that ‘team work, communication, leadership, decision making’ are the key skills that make the student ‘work ready’ (Brooks and Ammons, 2003; Cheng and Warren, 2000). Group projects have the potential to develop, enhance and nurture these skills. (Graduate Careers Australia, 2007).

A review of literature reveals mixed reactions of the students with respect to group projects. While some find group projects valuable (Lima et al., 2007) there are also many who find it an unpleasant and frustrating part of management education. The reason for unpleasantness is majorly being a part of a dysfunctional group (Aggarwal and O’Brien, 2008; Dommeyer, 2007; Pauli et al., 2008; Pfaff and Huddleston, 2003). The main reason for unpleasantness is the fact that free-riders enjoy marks and appreciation despite being dead wood in the group (Healey, 1993). Free riding is defined as a characteristic behavior of of a group setting wherein “individuals do not contribute their fair share to a group effort as perceived by group members” (Aggarwal and O’Brien, 2008: 256) and this has a negative impact on group projects. Free-riding is a serious problem that needs a resolution—for it will not only add to the unpleasantness towards group work, but

it shall also impact the intended learning and defy the very purpose of the project (Bacon, 2005)

Theoretical Background

Petty and Cacioppo (1979, 1981) conducted multiple brainstorming experiments to study the relationship between social loafing and involvement. The subjects were presented with messages that had a high or low personal involvement for them. High personal involvement messages are messages that have an intrinsic importance, personal meaning and have a substantial impact on their lives. In situations of high personal involvement messages, less social loafing was observed in brainstorming and vice-versa. Even when the individual outputs could not be measured, the individuals were willing to invest more cognitive efforts.

Harkin and Petty (1982) confirmed in a series of experiments that difficult tasks preempted loafing, even if the individual output was not measurable and identifiable. Increasing the level of difficulty or challenge of the task or assigning each subject a different and unique task to perform reduces the manifestation of social loafing. It was observed that when the subjects perceive that they can bring unique contributions to a group task, social loafing is reduced. A challenging task provides enough performance motivation and loafing may not manifest despite the fact that the subject's work remains unidentifiable. The subjects feel that the task provides them enough prospect to contribute substantially, enough to put forth their best efforts. Harkins and Petty (1982) conducted four experiments. In experiments 1&2 the tasks were more challenging and in experiments 3&4 the subjects were expected to make non-redundant and thus unique responses. Social loafing was not observed even when the responses were fully unidentifiable.

Jackson and Harkins (1985) opined that when people in a group setting expect their co-workers to loaf, they decrease their own efforts in order to obtain equity and avoid unrest for having expended more efforts than their peers. This is called as social loafing on account of perceived co-worker loafing (Comer, 1995). Observing the behavior of others makes an individual modify his own behavior to attain equity of efforts ((Mitchell, Rothman & Liden, 1985). It implies that individuals who are skeptical about others' loafing

behaviors are much more likely to engage in social loafing (Schnake, 1991) Information or perception about the co-workers' intended level of performance makes the subjects reduce and thus match their efforts to their partners' performance, irrespective of the fact whether the individual outputs were identifiable or not. This equity approach proposed by Harkins provides a plausible explanation for the social loafing effect. Having known about a partner's effort induces in an individual an urge in an individual to match that level.

Shea and Guzzo (1987) operationalize task interdependence as "the perception of the degree to which group members need to interact with one another when working on tasks". It's basically a perception of the task-driven interaction among work group members. When the perception of task interdependence is high, the participant feels that his/her efforts are not identifiable and thus indistinguishable from that of the other group members, an opportunity for personal achievement is not forthright and they thus refrain from putting in the efforts that they would have put in had it been an individual task. This is characteristic of individuals high on personal accomplishment. Contrarily, when perception of task interdependence is low, the participants find enough avenues to showcase their contributions and hence find it worth expending efforts.

Organizational behavior literature defines distributive justice "as a belief that one shall be paid commensurate with the expended efforts and worth and this has indeed shown to motivate individuals to put forth efforts". Tyler (1994) has proposed a theoretical linkage between equity theory and organizational justice which is further substantiated by Kidwell and Bennett's (1993) study that perceived equity/distributive justice and social loafing bear a negative relation.

Mudrack (1989) defined group cohesiveness as "the extent to which the group mates are attracted to each other and intend to 'be' together". Close knit and cohesive groups are low on social loafing as the members feel that such a behavior shall let down fellow members. Fragmented groups on the other hand have individuals engaged in social loafing as a sense of "we-ness" is largely missing and group esteem is thus inexistent.

Social Loafing and Social Impact Theory

The theory suggests that increasing the number of individuals in a group should diminish the pressure on each member of the group because the impact is divided among group members. In a group performance context, where individual outputs are not assignable and identifiable and pressure to perform come from outside the group, the division of impact should lead to each individual to work less than before, when the group size was small. Thus, whether an individual is calculating in terms of the efforts he should invest or in terms of the awards that he should expect-both the ways he decides to work less hard in groups. The larger the group size, the greater the increase in individual anonymity. Jones (1984) proposed that individual contributions are thus not ascertainable in larger group settings. The presence of ‘so many others’ in the group fosters the feeling of unaccountability, immeasurability of outcomes, less personal accomplishment and thus withholding of efforts as a perception prevails that doing so shall not affect the outcomes. A large group size has inherent problems of motivation, monitoring and feedback and this too complements in abetting social loafing (Hechter, 1987).

The theory further predicts the pattern in which the reduction of output follows. Stevens (1957) suggested that just as the perceptual judgments of physical stimuli follow power functions, so should the judgments of social stimuli follow. The exponent of the psycho-social power function should have an exponent of less than one, resulting in a marginally decreasing impact of the additional people. The theory thus proposes that the amount of effort expended in group context should decrease as an inverse power function of the number of people in the group. Thus, the social impact theory provides a plausible account of both the existence and magnitude of social loafing. The theory finds a strong premise in experiments conducted by Latane, Williams and Harkins and thus published in a seminal study titled “*Many Hands Make Light the Work-The Causes and Consequences of Social Loafing*”.

Research Model

Based on literature, the study identified five factors which impact on overall performance of group project. Figure 1 shows research model.

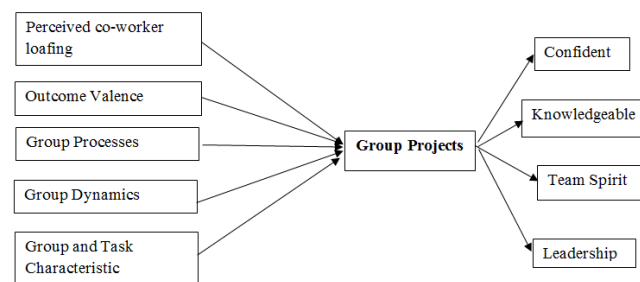


Figure 1: Research Model for Study

Methodology

Sample

The study is based on primary data collected from the students pursuing PGDM (Post Graduate Diploma in Management) from the private B-Schools located in Rajasthan. The students belonged to both first and second year of the PGDM program. Group projects are a regular feature of B-School classrooms (Rafferty, 2012). Thus, the choice of respondents is apt as each respondent has an experience of group projects as a part of their curriculum. The respondents had a reasonably fair understanding of the purpose, process and challenges encountered in a group project setting and hence were ideal for the study (Riebe, Girardi and Whisted, 2016). The sampling method used is a judgment sampling as judgment and logic suggest that the students enrolled in a PGDM program have a reasonable experience of a group project setting and hence they could be ideal respondents for the study. The sample for the study was drawn from 16 states of India.

Construct Operationalization

Based on a comprehensive review of existing literature, a measurement instrument was constructed. The research constructs were measured with the help of a questionnaire. Besides questions on demographic details, the questionnaire has 11 questions. All questions are close-ended except the last question that measured the overall experience of the respondent on the group projects and the reasons for the response. While all the questions were multiple choice questions, one question was created on a Likert Scale. It had 27 research questions to be answered on a 5 point Likert Scale where 1=strongly agree, 2=agree, 3=neither agree/disagree, 4=disagree and

5=strongly disagree. The 27 questions used for research are given below. The questions have been derived from a robust and meticulous review of existing literature. The measurement instrument was duly vetted by two senior professors in the area of Education Psychology and Organizational Behavior respectively. The reliability co-efficient (Cronbach's α) values were well above the prescribed limit of 0.70, which indicates that the data set has a satisfactory level of reliability (Cronbach, 1951).

Pre-Testing the Measurement Instrument

The research instrument is a structured questionnaire designed in sync with the theoretical constructs discussed in the previous section. The questionnaire was pre-tested on 30 students of PGMD final year to ensure its validity. Analysis of the pre-test phase showed that some of the items within the factor did not explain the relation

among the constructs. Hence, some items were modified in light of the pre-test results to ensure construct validity. The data collected from pre-testing was not a part of the main analysis presented in the study.

Data Collection and Sampling

The pre-test phase used an offline mode for data collection, owing to the immediacy of results for revising the research instrument. Finally, the data was collected online using a google doc. The data was collected online using a Google Doc. The email ids of the respondents were obtained from the faculty co-ordinators of the PGDM program. The questionnaire was administered to the respondents in the months of September–November 2018, where 468 respondents participated in the study. 450 questionnaires were found to be complete in all respects and hence included in the final analysis.

No.	Statements
S1	All students do not contribute equally in a group project
S2	Some students contribute less because the contribution that one makes is not identifiable (i.e. the faculty will not know if the student has not contributed)
S3	Some students avoid contributing in a group intentionally
S4	Some students contribute less because low efforts shall not be followed by penalty
S5	Some students contribute less because high efforts shall not be followed by a reward
S6	Some students contribute less because the task assigned is too simple to be done in a group
S7	Some students contribute less because the task holds no personal meaning to them
S8	Some students contribute less because they know that the group task has no scope for making unique contributions
S9	Some students contribute less because the group task is unchallenging, so the task offers no kick
S10	Some students contribute less because they perceive that others in the group contribute less and so why should they spend more effort and time
S11	Some students contribute less because there is a very weak/no relationship between individual efforts and awards
S12	Some students contribute less because the group task does not require any task interdependence
S13	Some students contribute less because the group size is too large, task is too simple and their efforts shall have no visibility
S14	Some students contribute less because the group is too fragmented and has no cohesiveness
S15	Some students contribute less because the project runs throughout the course term and is a large project and thus incidence of social loafing increases
S16	Some students contribute less because they know that peer evaluation does not happen and hence they would not be exposed
S17	If the groups are formed by the students, less free riding takes place
S18	All students in a group shall participate equally if the project emulates a workplace situation rather than being an extension of typical course work
S19	The more diverse the group, the lesser the incidence of social loafing
S20	Some students contribute less because they know that peer evaluation happens late and they shall be exposed quite late

S21	Sometime avoiding work is not intentional because dominant group members avoid giving work to those group members who lack communication skill
S22	Sometimes some group members do not allow a student to contribute because they feel that he/she does not have the necessary skills and might diminish their grades
S23	Dominant group member do not give role/work to the less assertive student participants
S24	All group members do not contribute equally because there are no group norms
S26	All group members do not contribute equally because there are competing demands from other courses
S27	All group members do not contribute equally because they may have different and incompatible working styles

Table 1: Measurement Instrument

Data Analysis

A total of 600 surveys were administered on google docs. Out of these 600 surveys, 450 were completed and returned for a 75% percent response rate. A sample descriptive statistics reveals that 51 % respondents were male and 49 % respondents were female.82 % of the respondents did not have a work experience prior to joining the PGDM program, while 18 percent of the respondents had a work experience of 15

months (average) prior to enrolling in the PGDM program. Around 90% students have shown preference for group project in their study. They feel that individual projects have lesser learning opportunities, fail to provide a training in leadership, have enormous work to handle and throw no challenge. 88% students believe that group projects train them in collaboration and leadership skills.

Gender	
Male	51.00%
Female	49.00%
Prior Work Experience	
No	82%
Yes	18%
Project Preference	
Group Project	89.70%
Individual Project	10.30%
Limitation of individual projects	
Less learning	38.30%
Fails to train in leadership skills	29.40%
Difficult to handle huge amount of work	19.80%
Monotonous as there is no challenge	12.50%
Importance of working in Group Project	
Teach teamwork	55.20%
Teach communication skills	7.40%
Increases placement readiness	3.80%
Imparts leadership skills	33.60%
Designated Leader for project	
Yes	31.00%
No	69.00%
Allocation of work in Project	
By Students	71.00%
By Faculty	29.00%

Table 2: Sample Statistics

Factor Analysis

The Questionnaire in this research consists of information collected on 27 variables, which the students find important while doing group project in their study. Factor analysis is used for reducing the number of variables by clubbing them into some factors which are highly correlated. These factors represent the variables which have similar effect on the criterion variable. Table 4 shows factor names and their variables.

The Bartlett’s Sphericity test is the statistical way to analyze the correlation matrix in which the null hypothesis states that the determinant of the correlation matrix is 1 i.e. the matrix is an identity matrix. The value of the KMO is 0.901 which is greater .5 signifies that the data which we have collected is relevant for the research. Thus we can proceed further with the factor analysis.

The Eigen value gives the amount of variance in the observed variables accounted for by each component or factor. Only those factors were selected which had Eigen value greater than 1.0. Thus it can be seen in the output that a total of four factors have been chosen which show 62.781 % of variation. Among these four factors the first factor is contributing the maximum variation while others contributing in a decreasing manner.

Statement	Component				
	1	2	3	4	5
S1	.725				
S2	.696				
S3	.761				
S4	.665				
S5	.497				
S10	.471				
S16	.668				
S6		.722			
S7		.468			
S8		.600			
S9		.774			
S11		.412			
S12		.633			
S13		.747			
S14		.524			
S15					
S17					.545
S18					.617
S19					.798
S20				.469	
S21				.739	
S22				.725	
S23				.743	
S24			.666		
S25			.719		
S26			.539		
S27			.578		

Table 3: Factor Analysis

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Rotation converged in 12 iterations.

Factor	Name of Factor	Statements in factor
F1	Perceived co-worker loafing	S1, S2, S3, S4, S5, S10, S16
F2	Outcome Valence	S6, S7, S8, S9, S11, S12, S13, S14
F3	Group Processes	S24, S25, S26, S27
F4	Group Dynamics	S20, S21, S22, S23
F5	Group and Task Characteristic	S17, S18, S19

Table 4: Factor Nomenclature and corresponding variables

Research Hypothesis Formulation and Hypothesis Testing

On the basis of the arguments given above, we posit the following hypothesis:

H1: Perceived co-worker loafing has no significant impact on social loafing in group projects.

H2: Outcome valence has no significant impact on social loafing in group projects.

H3: Group processes have no significant impact on social loafing in group projects.

H4: Group dynamics has no significant impact on social loafing in group projects.

H5: Group and task characteristic have no significant impact on social loafing in group projects.

Hypothesis	t Value	p Value	Remarks
F1-Overall Satisfaction	4.88	0.000	p<0.05, hypothesis rejected
F2-Overall Satisfaction	13.206	0.000	p<0.05, hypothesis rejected
F3-Overall Satisfaction	7.77	0.000	p<0.05, hypothesis rejected
F4-Overall Satisfaction	9.76	0.000	p<0.05, hypothesis rejected
F5-Overall Satisfaction	6.55	0.000	p<0.05, hypothesis rejected

Table 5: Hypothesis Testing-2 sample t-Test

Discussions and Implications

Table: Example of matrix questions with a 5-level Likert scale: ‘At the beginning of the project I felt ...’

Parameters	Mean	Standard deviation
Confident	4.00	0.95
Knowledgeable	3.81	0.85
Prepared	3.77	0.93
Energetic	3.92	0.98
Motivated	3.99	0.98

Table 6: Analysis of the Matrix Question

The data from the survey suggests that group projects made the students feel Confident (Mean=4, SD=0.95), Knowledgeable (Mean=3.81, SD=0.85), Prepared (Mean=3.77, SD=0.93), Energetic (Mean=3.92, SD=0.98) and Motivated (Mean=3.99, SD=0.98).

Note that the responses were measured on a 5 point Likert Scale with 1=strongly agree to 5=strongly disagree.

Thematic Analysis of Open Ended Responses

Most students rate the experience with group projects as ranging from good to excellent. Very few have reported a bad experience at group projects. The key emerging themes are as follows:

- i. *The feedback in group projects is instantaneous, spontaneous and real-time. The instant recognition and appreciation by the faculty gives an instant dose of motivation to the student and he/she starts working harder on other projects too.*
- ii. *Some students have reported that some students don't contribute much on the project, but employ a very diplomatic strategy. They keep going to the faculty and engage in conversations that gives the faculty an impression that they have been working very hard on the project, even they are not working that hard. They achieve success in creating an environment where*

- despite not contributing, they could garner better marks and grades.*
- iii. *The group projects give enormous lessons on team work-a corporate pre-requisite. At the same time, they lead to a better output because of division of work, capitalizing on different strengths of different individual of a working group.*
- iv. *Group assignments have been for a few students because most of the time (as high as 90%) not all students share the responsibility and a few serious students have to take up the onus of completing their task. Social loafing finds an expression and it is not a onetime occurrence-it recurs in all other projects too because the defaulters get an impetus on not being exposed. They get an encouragement to repeat the same in other courses too.*
- v. *Group Projects teach the students to manage well in difficult situations and enhance their leadership skills.*
- vi. *Sometimes the informal group leader fails to communicate and pass on clear instructions. Thus, in the absence of a clear work allocation, the group work suffers and eventually those who could have contributed also fail to contribute. As the deadline nears, a few conscientious students own up and finish the project and thus the opportunity to learn for others is lost.*
- vii. *It's frustrating for some, as there had been cases, where a smart and glib communicator stole the show and got appreciation, while actually he/she was a dead wood in the group. On the delivery of the presentation, owing to his/her superlative communication skills, he/she could cast a spell, while the one who contributed the most could not leverage it at the time of delivery, owing to not so great communication.*

- viii. *A good experience as a good team and interesting task reduced social loafing in the group. All contribute equally and all group members receive equal opportunities to learn.*
- ix. *Bad because of bad group dynamics and ego problems and misunderstandings with group members.*
- x. *Frustrating because group norms are largely missing.*
- xi. *A lot of nervousness makes it a not so good experience.*
- xii. *Good because they impart corporate recognized skills like-leadership communication, confidence and the like.*
- xiii. *Frustrating because there is no mechanism to identify an individual's contribution. Many a times, those who did not contribute an iota got the highest score in the presentations. It so happened that those who didn't even bother to ask about the presentation tasks, deadlines and expected portions to present, also are able to get the highest grades as the faculty does not know who had brought what to the table.*
- xiv. *Better allocation of task is needed.*
- xv. *Initially, there were problems but all settled in the course of work. Cohesiveness increased and bonds strengthened.*
- xvi. *Good as good chemistry exists in the group members and diverse tasks are handled by members with diverse skills.*
- xvii. *Better experience when groups are formed by students than when they are formed by the faculty. Social loafing is less if groups are formed by the student because chemistry works well when students make the group themselves.*
- xviii. *Frustrating because despite being dedicated, one can lose marks because of other members' callousness.*
- xix. *Frustrating because of poor group processes. Some students have no peer respect and speak out of the designated sequence and encroach upon other members's share of content. As a consequence, the other member is not left with much content to deliver and hence earns less marks despite not being a fault at all.*
- xx. *Good learning because the groups were decided by the faculty and hence a group was heterogeneous with different people belonging to different regions,, varied skills, difference graduation disciplines and of course a gender diverse group.*
- xxi. *Good as I learned to manage group diversity and also to manage the inherent differences between individuals. Made me better on people management.*
- xxii. *Good as it was a great learning opportunity.*
- xxiii. *Frustrating as some don't contribute and still they could not complain out of peer respect and collegiality for classmates.*
- xxiv. *Learning with fun*
- xxv. *Learnt the art of disagreeing gracefully and assertively.*
- xxvi. *Sometimes, what is called free-riding is actually not free riding. It's the team leader, who does not assign work to a student who is a weak communicator, out of a fear of scoring less marks as a group. The weaker student is deliberately quarantined. This is precisely the case with over ambitious, self-centered team leaders.*

Implications

Group projects need a lot of design thinking on the part of faculty. They should be so created that they are comprehensive in detail and so designed that the task mandates more than one person to achieve the project objectives (McCorkle et al., 1999). Thus, the project has enough substance that renders itself to be achieved only in a group setting. Besides being complex and comprehensive, the group project should also equip students with valuable team working skills (Hansen, 2006). Moreover, it should be thus that it replicates a corporate workplace setting and has a much larger scope than a typical coursework (McCorkle et al., 1999). An attempt should be made to assign the students the real life work place problems and dilemmas as a group project. A corporate style work setting must replace the traditional educational environment (McCorkle et al., 1999). Furthermore, the group constitution must be diverse in order to ensure that the group members work and learn together as well as learn about each other (Aggarwal and O'Brien, 2008; Webb, 1997).

References

- [1] Aggarwal P and O'Brien CL (2008) Social loafing on group projects: Structural antecedents and effect on student satisfaction. *Journal of Marketing Education* 30(3): 255–64.
- [2] Allen B, Crosky A, Mcalpine I, et al. (2006) A blended approach to collaborative learning: Can it make large group teaching more student-centred? In: Proceedings of the 23rd annual ASCILITE conference: Who's learning? Whose technology? 3-6 December, Sydney University Press; Sydney, NSW, Australia, pp. 33–42.
- [3] Bacon DR (2005) The effect of group projects on content-related learning. *Journal of Management Education* 29(2): 248–67.
- [4] Brooks CM and Ammons JL (2003) Free riding in group projects and the effects of timing, frequency, and specificity of criteria in peer assessments. *The Journal of Education for Business* 78(5): 268–72.
- [5] Cheng W and Warren M (2000) Making a difference: Using peers to assess individual students' contributions to a group project. *Teaching in Higher Education* 5(2): 243–55.
- [6] Dommeyer CJ (2007) Using the diary method to deal with social loafers on the group project: Its effects on peer evaluations, group behavior, and attitudes. *Journal of Marketing Education* 29(2): 175–88.
- [7] Ettington DR and Camp RR (2002) Facilitating transfer of skills between group projects and work teams. *Journal of Management Education* 26(4): 356–79.
- [8] Graduate Careers Australia (2007) Snapshot: Graduate outlook 2007. A summary of the graduate outlook survey. Melbourne, VIC: Graduate Careers Australia.
- [9] Harkins, S., Latane, B., & Williams, K. (1980). Social loafing: Allocating effort or taking it easy? *Journal of Experimental Social Psychology*, 16, 457-465.
- [10] Harkins, S. G., & Petty, R. E. (1982). Effects of task difficulty and task uniqueness on social loafing. *Journal of Personality and Social Psychology*, 43, 1214-1229.
- [11] Healey M (1993) Developing student capability using peer and self assessment: A preliminary evaluation of the distribution of a pool of marks technique for assessing the contribution of individuals to a group project. In: HEC conference on using assessment to develop capability, 14 July; London, UK.
- [12] Pauli R, Mohiyeddini C, Bray D, et al. (2008) Individual differences in negative group work experiences in collaborative student learning. *Educational Psychology* 28(1): 47–58.
- [13] Pfaff E and Huddleston P (2003) Does it matter if I hate teamwork? What impacts student attitudes toward teamwork. *Journal of Marketing Education* 25(1): 37–45.
- [14] Petty, R. E., & Cacioppo, J. T. (1979). Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses. *Journal of Personality and Social Psychology*, 37, 1915-1926.
- [15] Lima RM, Carvalho D, Flores MA, et al. (2007) A case study on project led education in engineering: Students' and teachers' perceptions. *European Journal of Engineering Education* 32(3): 337–47.
- [16] Petty, R. E., & Cacioppo, J. T. (1981). Attitudes and persuasion: Classic and contemporary approaches. Dubuque, IA: Brown.
- [17] Jones, G. R. (1984). Task visibility, free riding and shirking: Explaining the effect of structure and technology on employee behavior. *Journal of Personality and Social Psychology*, 9, 684-695.
- [18] George, J. M. (1992). Extrinsic and intrinsic origins of perceived social loafing in organizations. *Academy of Management Journal*, 35: 191–202.
- [19] Shea, G. P., & Guzzo, R. A. 1987. Groups as human resources. *Research in Personnel and Human Resources Management*, 5: 323–356.
- [20] Tyler, T. R. 1994. Psychological models of the justice motive: Antecedents of distributive and procedural justice. *Journal of Personality and Social Psychology*, 67: 850–863.
- [21] Kidwell, R. E., & Bennett, N. 1993. Employee propensity to withhold effort: A conceptual model to intersect three avenues

- of research. *Academy of Management Review*, 18: 429–456.
- [22] Hechter, M. 1987. Principles of group solidarity. Berkeley: University of California Press.
- [23] McCorkle DE, Reardon J, Alexander JF, et al. (1999) Undergraduate marketing students, group projects, and teamwork: The good, the bad, and the ugly? *Journal of Marketing Education* 21(2): 106–17.
- [24] Mudrack, P. E. 1989. Group cohesiveness and productivity: A closer look. *Human Relations*, 42: 771–785.
- [25] Comer, D. R. 1995. A model of social loafing in real work groups. *Human Relations*, 48: 647–667.
- [26] Mitchell, T. R., Rothman, M., & Liden, R. C. 1985. The effects of normative information on task performance. *Journal of Applied Psychology*, 70: 48–55.
- [27] Stevens, S. S. On the psychological law. *Psychological Review*, 1957, 64, 153-181.
- [28] Marriott, R. Size of working group and output. *Occupational Psychology*, 1949, 23, 47-57.
- [29] Campbell, M. Group incentive payment schemes: The effects of lack of understanding and group size. *Occupational Psychology*, 1952, 26, 15-21.
- [30] Latane, B., & Darley, J. M. The unresponsive bystander: Why doesn't he help? New York: Appleton-Century-Crofts, 1970.
- [31] Wicker, A. N. Size of church membership and members support of church behavior settings. *Journal of Personality and Social Psychology*, 1969, 13, 278-288.
- [32] Petty, R., Harkins, S., Williams, K., & LataniS, B. The effects of group size on cognitive effort and evaluation. *Personality and Social Psychology Bulletin*, 1977, 3, 579-582.
- [33] Leon, D. The kibbutz: A new way of life. London: Pergamon Press, 1969.
- [34] Cronbach, L.J. (1951), "Coefficient alpha and the internal structures of tests", *Psychometrika*, Vol. 16 No. 3, pp. 297-333.