

STUDENT TEAMS: A CORE STRATEGY IN BUSINESS EDUCATION PROGRAMMES

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Introduction

Teamwork is a vital skill for students to acquire. Research confirms a demonstrated relationship between teamwork and developing academic skills (Johnson, Maruyama, Johnson, Nelson, & Skon, 1981) as well as interpersonal skills such as promoting understanding of others and self-esteem (Slavin, Sharan, Kagan, Hertz-Lazarowitz, Webb, & Schmuck, 1985). Research also confirms improvements to workforce productivity if diverse teams are effectively managed (Adler, 1997; Cox & Blake, 1991; DiStefano & Maznevski: 2000; Richard; 2000). However, teamwork is also a vital skill for students to acquire as formal work teams have become prevalent in managing work organizations (Morehead, Steele, Alexander, Stephen & Duffin: 1997). For instance, 47% of workplaces surveyed for the 1995 Australian Workplace Industrial Relations Survey (Morehead et al., 1997) used teams in managing

workplaces. The popularity of teams as a management tool is directly linked to benefits including the ability to streamline work processes, enhance employee participation and improve customer service quality (Eby & Dobbins, 1997). It is therefore not surprising that employers look favourably upon the development of teamwork skills in graduates (see National Survey of Graduate Employers, 1993; Employers Satisfaction with Graduate Skills, 2000; Employability Skills for the Future, 2002).

In summary, being experienced in teamwork not only deepens skill development; teamwork experience also enhances a students' employability. These reasons thus highlight the importance of using student teamwork as a core strategy in business education programmes, Yet, despite the opportunity-related reasons for cultivating teamwork skills, students have a number of grievances about team projects. Using research undertaken with Business School students, this paper begins with presenting the findings from a research programme that has aimed to answer the question 'what are the factors affecting student willingness to participate in student teams'? This research examined individual-level factors influencing student involvement with teamwork. The second part of the paper presents a strategic approach that has been developed using this research base to improve the student experience of teamwork. This experience confirms that good teamwork doesn't just happen; it has to be 'made' to happen and managed effectively.

Researching Students

Student grievances about teamwork include mismatched team member expectations about the grade team members aim for, the 'free rider' or 'social loafer' problem, inadequate definition of roles and responsibilities for successful completion of the team project, lack of leadership and inability to manage conflict (Buckenmeyer: 2000). To better understand these individual-level factors

affecting student willingness to engage in teamwork, a research project using survey methodology and focus groups was undertaken with Business School students. Already tested items with a 7 point Likert scale ranging from strongly disagree (1) to strongly agree (7) was used in the surveys. These were administered to students before they engaged in team projects. The surveys were administered during 2003. Discipline areas from which students were sourced covered industrial relations and management subjects. All students surveyed were undergraduate students. Focus groups were also conducted with self-selecting students.

The surveys were conducted at two points: in 2001 and 2003. The aim in doing so was to ascertain whether student viewpoints about the factors affecting their willingness to engage in teamwork remained constant, regardless of time surveyed. After describing the survey items, the remaining discussion presents the findings for the separate surveys, followed by a general discussion about the findings overall. The second half of the paper subsequently details some strategies that have been developed in response to the research findings that attempt to proactively harness student readiness to engage in teamwork.

Survey Items

The survey items assessing individual-level factors affecting teamwork are as follows:

Collectivism represents an individual's belief that collective or group interests should take precedence over individual self-interest (Van Dyne et al: 2000: 5). According to Shamir (1990), collectivistic behaviour such as preferring to work in a team context may be influenced by calculative concerns (i.e. expected outcomes for oneself and the perceived likelihood of attaining performance goals), internalized values (e.g. valuing co-operative norms, altruism) and identity salience (e.g. maintaining one's self concept through affiliation with others). Participants were asked to rate the degree to

which collective or group interests should take precedence over individual self-interest. A 3-item set of questions was asked (Eby & Dobbins: 1997). A sample item is 'I prefer to work with others in a team rather than to work alone.' Alpha was .58 (2003 findings)

However, quoting Shamir (1990), Eby and Dobbins (1997) clarify that understanding an individual's desire to work collectively (as in a team project) requires examining several motivational bases including an individual's desire for control. Quoting Bandura (1992), Eby and Dobbins (1997:277) suggest that there are two distinct aspects of control: efficacy expectations and locus of causality. Self-efficacy refers to the perceived level of personal efficacy related to the exercise of effort and skill in changing one's environment. An 8-item set of questions was asked to assess self-efficacy for teamwork. A sample item is 'I can work very effectively in a team setting'. Alpha was .79 (2003 findings).

On the other hand, locus of control refers to the individual's perception of the external constraints affecting performance and the ability to modify or control these constraints (Eby & Dobbins: 1997: 278). Accordingly, a 9-item set of questions investigating task locus of control (Eby & Dobbins: 1997) was asked. A sample item is 'my major achievements are entirely due to my hard work and ability'. Alpha was .70 (2003 findings).

Eby and Dobbins (1997: 280) also identify the need for social approval as another motivational base affecting the individual's proclivity towards collectivism. Eby and Dobbins (1997:280) describe social approval as the individual's need for affiliation with others or the individual's desire for engaging in activities with others and wanting to maintain positive social relations. They hypothesize that the need for social approval will be positively related to one's collectivistic orientation. A 9-item scale assessing social approval was subsequently asked. A sample item is 'I am careful not to do or say

things that others won't like at parties and social gatherings. Alpha was .57 (2003 findings).

Research Findings 2001

The 2001 survey was completed by 311 undergraduates. The mean age of respondents was 20 years with 47.3% being male and 50.5% being female. In terms of cultural diversity, 210 were non-indigenous Australians and 45 were from a range of countries in the Asian region. The results presented in Table 1 represent a total of valid percentage of items 5, 6 and 7 (slightly agree, moderately agree and strongly agree) for the surveys.

Results from focus groups conducted in 2001 support the picture presented by these findings. When asked to elaborate on the assessment structure that they preferred, students who preferred individually-based assessment rather than team based assessment, students listed the following reasons:

- They were not in the position to choose their team members;
- They experienced difficulties in managing their timetables to meet, particularly when they have to juggle work, and multiple team projects across disciplines.

At the same time, students who preferred to receive team-marked course assessment listed the opportunity to choose their own team members as a critical factor. This was particularly when they were familiar with other team members and had worked with the team members on other projects in the past.

When students were asked to list the obstacles in terms of student readiness in doing team projects, they suggested the following:

- Getting team projects started;
- Managing social loafing;
- Managing the motivation levels of team members;

- Defining common outcomes (pass versus distinctions);
- Managing conflicts;
- Managing people with different working styles that make cooperation difficult, for example, people who have different time perceptions of meeting assignment deadlines. Some people may leave the assignment very late, while others are more consistent.
- Managing team members' communication styles (irrelevant conversation, withdrawn behaviour, outspoken manners)

Table 1: Summary Table Assessing Individual Factors, 2001

Variable	Item	% Agree (2001)
Collectivism	<ul style="list-style-type: none"> • Given a choice, I would prefer to do a job where I can work alone rather than do a job where I have to work for others. 	34.3%
	<ul style="list-style-type: none"> • I like it when team members do things on their own, rather than working with others all the time. 	53.8%
	<ul style="list-style-type: none"> • I prefer to work with others in a team rather than to work alone. 	46.0%
Self Efficacy for Teamwork	<ul style="list-style-type: none"> • I can work effectively in a team setting 	77.7%
	<ul style="list-style-type: none"> • I can contribute valuable insight into a team project 	94.6%
	<ul style="list-style-type: none"> • I can easily get people to talk 	71.7%

	to each other	
	• I can effectively co-ordinate tasks and activities of a team.	86.1%
	• I am able to resolve conflicts between individuals effectively.	74.2%
Task Locus of Control	• I get what I want because I work hard for it.	91.9%
	• I like to know how well I do relative to others on any sort of exam or essay.	92.0%
	• When I make plans I almost certainly make them work.	75.8%
	• My major achievements are entirely due to my hard work and ability.	81.7%
Approval Motivation	• I am careful not to do or say things that others won't like at parties or social gatherings.	44.8%
	• I would rather be myself than well thought of.	64.0%
	• I often change my opinion to please someone.	18.9%
	• I tend to be what people expect of me to get along and be liked	37.8%
	• I can take criticism or anything anyone says about me.	67.6%
	• I usually do not change my position when people disagree with me	65.4%

Research Findings, 2003

The 2003 survey was completed by 155 students. The mean age of respondents was 21 years with 47.7% being male and 52.3% being female. In terms of cultural

diversity, the main groups were non-indigenous Australians (n=81) and Asian (n=51). Similar to Table 1 and 2001 findings, the results presented in Table 2 represent a total of valid percentage of items 5, 6 and 7 (slightly agree, moderately agree and strongly agree) for the surveys.

Table 2: Summary Table Assessing Individual Factors, 2003

Variable	Item	% Agree
Collectivism	• Given a choice, I would prefer to do a job where I can work alone rather than do a job where I have to work for others.	30.5%
	• I like it when team members do things on their own, rather than working with others all the time.	46.4%
	• I prefer to work with others in a team rather than to work alone.	57.9%
Self Efficacy for Teamwork	• I can work effectively in a team setting	89.6%
	• I can contribute valuable insight into a team project	92.9%
	• I can easily get people to talk to each other	72.1%
	• I can effectively co-ordinate tasks and activities of a team.	84.7%
	• I am able to resolve conflicts between individuals effectively.	76.1%
Task Locus of Control	• I get what I want because I work hard for it.	92.3%
	• I like to know how well I do relative to others on any sort of exam or essay.	86.5%
	• When I make plans I almost	63.4%

	certainly make them work.	
	<ul style="list-style-type: none"> • My major achievements are entirely due to my hard work and ability. 	80.4%
Approval Motivation	<ul style="list-style-type: none"> • I am careful not to do or say things that others won't like at parties or social gatherings. 	53.2%
	<ul style="list-style-type: none"> • I would rather be myself than well thought of. 	57.8%
	<ul style="list-style-type: none"> • I often change my opinion to please someone. 	19.5%
	<ul style="list-style-type: none"> • I tend to be what people expect of me to get along and be liked 	42.6%
	<ul style="list-style-type: none"> • I can take criticism or anything anyone says about me. 	66.7%
	<ul style="list-style-type: none"> • I usually do not change my position when people disagree with me 	61.8%

Discussion of Findings

Whilst there is some variance between the time periods surveyed, the results nonetheless between the two time periods confirm a similar pattern of factors affecting student willingness to engage in team projects (see Table 3):

Collectivism: The ratings on the items for this scale suggest that while not being overwhelmingly enthusiastic about working with others, at the same time, students weren't totally averse to working with others.

Self-efficacy for Teamwork: It is therefore then not surprising that students quite conclusively affirmed their

own abilities to work in teams and positively contribute to team outcomes.

Task Locus of Control: While displaying a propensity to work with others, as well as high levels of self efficacy for teamwork, students nonetheless overwhelmingly confirmed a desire to retain control of tasks allocated, suggesting that by so doing so they were able to 'carve their own destiny', rather than have to rely on others.

Approval Motivation: The results on this factor reflect results on the other factors. That is, in keeping with moderate student enthusiasm for working with others, yet high levels of self-efficacy about managing teamwork and wanting to retain task locus of control, students at the same time demonstrated moderate disregard for public perceptions of their actions.

In summary, the results are in line with expectations that confirm that if given a choice, students may well *prefer* individual-level work rather than teamwork.

The research thus highlights that there is a challenge in facilitating student willingness to undertake teamwork. How can it be done? The next section of this paper outlines some strategies that have been undertaken to promote student readiness and willingness for teamwork.

Actioning the Research

The research prompted a number of initiatives to address the issues identified as influencing student readiness and willingness for teamwork. These have now been moulded into the following framework of principles for managing student teams. This framework is still considered a work in progress and comments are subsequently invited about its applicability.

Principle 1: Integrate the Team Project into Unit Curricula
Team projects will not be an effective teaching and learning activity unless integrated into all aspects of the unit curricula. That is, and like any other aspect of the curriculum, students must understand how they meet unit

outcomes by satisfactorily complete the team project. Achieving this involves a range of activities including answering questions such as why teams are being used, how the team project will contribute to course outcomes, the skills students may gain from the team project and how the team project will assist student preparation for post-University work. However, integrating the team project also encompasses demonstrating commitment by using strategies such as guaranteeing 'team time', facilitating planning for the team project, structuring the assessment process to balance team and individual work, ensuring teams have the skill and knowledge capabilities to complete the task and seeking student feedback on your management of the team project.

Table 3: Summary Table Assessing Individual Factors, 2001, 2003

Variable	Item	% Agree (2001)	% Agree (2003)
Collectivism	• Given a choice, I would prefer to do a job where I can work alone rather than do a job where I have to work for others.	34.3%	30.5%
	• I like it when team members do things on their own, rather than working with others all the time.	53.8%	46.4%
	• I prefer to work with others in a team rather than to work alone.	46.0%	57.9%
Self Efficacy for Teamwork	• I can work effectively in a team setting	77.7%	89.6%
	• I can contribute	94.6%	92.9%

	valuable insight into a team project		
	• I can easily get people to talk to each other	71.7%	72.1%
	• I can effectively coordinate tasks and activities of a team.	86.1%	84.7%
	• I am able to resolve conflicts between individuals effectively.	74.2%	76.1%
Task Locus of Control	• I get what I want because I work hard for it.	91.9%	92.3%
	• I like to know how well I do relative to others on any sort of exam or essay.	92.0%	86.5%
	• When I make plans I almost certainly make them work.	75.8%	63.4%
	• My major achievements are entirely due to my hard work and ability.	81.7%	80.4%
Approval Motivation	• I am careful not to do or say things that others won't like at parties or social gatherings.	44.8%	53.2%
	• I would rather be myself than well thought of.	64.0%	57.8%
	• I often change my opinion to please someone.	18.9%	19.5%
	• I tend to be what people expect of me to get along and be liked	37.8%	42.6%
	• I can take criticism or	67.6%	66.7%

	anything anyone says about me.		
	<ul style="list-style-type: none"> I usually do not change my position when people disagree with me 	65.4%	61.8%

Principle 2: Preparing for Teamwork

A 'pre teamwork phase' (Michaelson: 2000) prior to determining the team membership is recommended. This has a number of aims:

1. To assist students' (and staff) get to know everyone's capabilities
2. To assist students' understanding of foundational course concepts necessary to complete the team project task before embarking upon the team project.
3. To assist in generating student commitment to effective team work.

Principle 3: Generating Team Members' Commitment

Given the research findings, a major challenge in managing student teams is to get students to commit to each other and complete the team project to their satisfaction. Addressing this principle in a practical sense lies in pursuing a combination of all the principles outlined here. In particular we suggest that pursuit of the pre-teamwork phase (principle 2) and managing fairness (principle 5) are highly influential in facilitating student commitment to effective team work.

Principle 4: Monitoring Team Progress (and managing conflict)

Monitoring team progress is an essential component of managing teams. It helps keep track of team progress in terms of task completion, but also in terms of team members' satisfaction. Thus, this is an important phase in managing team conflict.

Principle 5: Managing Fairness (and ensuring individual responsibility) in Teams

Managing fairness in teams has a number of different aspects. The most obvious is ensuring fairness in the assessment process. However, managing fairness in teams also includes the following aspects that are in turn related to the previous principles already discussed as well as principle 6 below of managing cultural and linguistic diversity.

1. Students should feel re-assured that staff has a commitment to facilitating effective student team performance (Principles 1, 2 and 4).
2. Staff should ensure that each team has the skill level required to complete the project (Principle 2).
3. Team members should feel confident in other team members' commitment to completing the team project (Principle 3).
4. Team members should feel supported in developing the skills to manage diversity amongst team members, especially cultural diversity (Principle 6).

Principle 6: Managing Cultural and Linguistic Diversity

The increasing internationalization of Australian university student populations juxtaposed against current research issues in handling multicultural teams, poses a challenge for managing diversity in student team projects. Managing cultural and linguistic diversity may be addressed by paying attention to the following:

1. Using the pre-team work phase to highlight cultural and linguistic diversity amongst the student population (principle 2).
2. Ensuring that the team project task draws out issues related to managing cultural and linguistic diversity.
3. Considering whether to proactively compose team membership paying attention to cultural and linguistic diversity.

Conclusion

These principles are in no way meant to be prescriptive nor exhaustive; yet they stem from both a research and action programme that has been pursued over the last few years. They are one attempt to assist those interested in this area how best to manage the 'juggle' of facilitating student teamwork experience, whilst recognising the factors and obstacles affecting student readiness and willingness to engage in teamwork.

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