'Team Members That Bring You Down Dead'
The Antecedents of Student Willingness to Participate in Team Projects

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Co-operative learning or working in teams (also referred to as collaborative learning or group work) has a demonstrated potential in achieving positive results (Slavin: 1986) in development of both academic (Johnson et al: 1981) and non-academic skills such as promoting understanding and self-esteem (Slavin et al: 1985). In addition, co-operative learning prepares students for working life, as team work is commonly deployed in management of organizations. Approximately 50 per cent of workplaces use teams in managing workforces. However students themselves are often hesitant about participating in team projects. This is particularly at the beginning of team projects. This reluctance stems from the general complexity of working in teams. That is, working in teams embodies a complex web of attitudes, understandings and behaviours (Jacques:1991). It is hypothesized that lack of student readiness for team work delimits performance in the early weeks of a team project. Given that a student team project only runs for 13 weeks (one semester), this can be a significant handicap affecting overall team performance and subsequent individual student satisfaction with the team process.

The aim of this paper is to present preliminary findings from research investigating the factors affecting student willingness to participate in team projects. In summary, the findings highlight that while students prefer to work individually on academic assignments, they believe that they can effectively manage team projects. High levels of intra-group trust or rather a perception that they can rely on and trust their fellow team members underpins this belief. Thus a key to effective student team projects is fostering intra-group trust. However it is suggested that doing so requires better management of the student team project process.
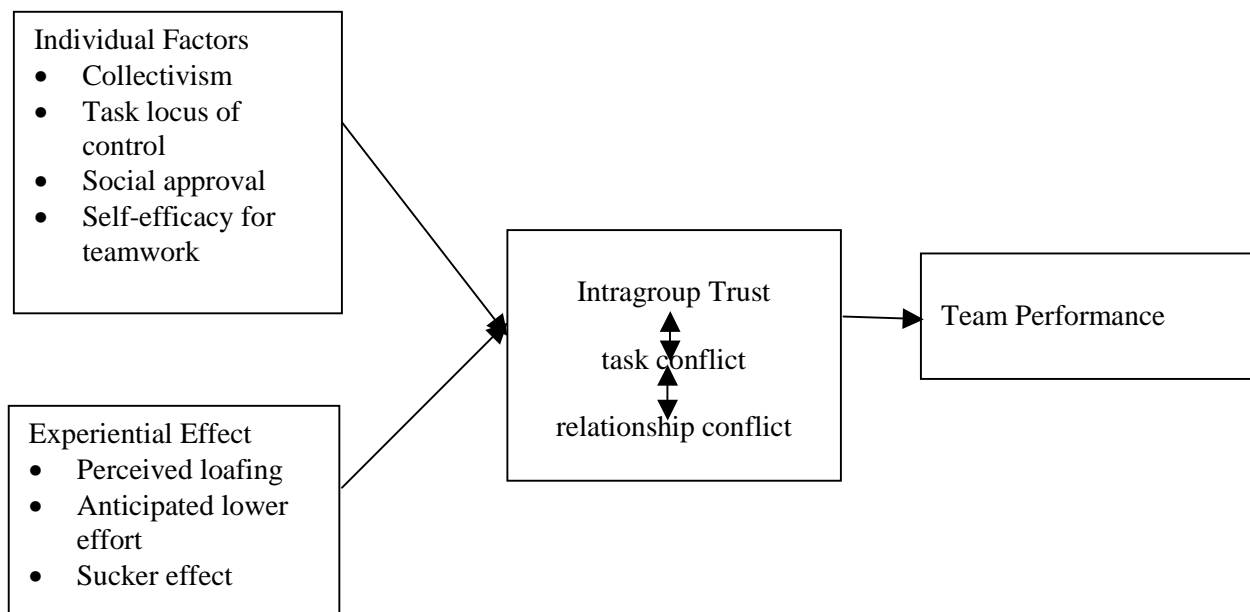
Introduction

While team work has a demonstrated potential in achieving positive results (Slavin:1986), as well as developing both academic and non-academic skills such as promoting understanding and self-esteem (Johnson et al:1981; Slavin et al:1985), students are often hesitant about participating in team projects. This is particularly at the beginning of team projects where lack of familiarity with other students' attitudes and behaviours (Jacques:1991) can inhibit student willingness to be effective team participants. Thus, an important question requiring an answer is 'what are the factors affecting student willingness to be involved in team projects?'

This paper is based on original research with student teams and aims to provide some answers to this question. Three separate questionnaires were administered over two semester programmes (13 weeks each) to a total of 193 students completing both elective and core units as part of an undergraduate degree in commerce, economics, arts or engineering. Randomly selected student focus groups were also conducted. In summary, the findings confirm the presence of a strong individualistic culture, which Hofstede (1980) identifies as characteristic of Anglo-Celtic societies such as Australia. At the same time students believe that they can effectively manage team projects. The research suggests, however, that this belief may be related to levels of intra-group trust between team members and within the team. Thus, if intra-group trust can be fostered in student teams, the opportunity arises for positive outcomes to emerge from student team projects. Achieving this outcome requires effective management of the student team process. Thus, one answer to the original research question 'what are the factors affecting student willingness to be involved in team projects?' is perhaps not related to a list of variables, but instead associated with better management of the student team process.

The Research Model

The literature highlights that team performance is affected by a number of variables. These have been summarized as incorporating individual level factors such as tendency towards individualism versus collectivism, task locus of control or the desire to retain control over project outcomes, the influence that need for social approval has on team behaviour, and self-efficacy or belief in abilities to complete team work projects. In addition, individual performance within teams was deemed to be affected by influences such as non-contributing team members. In developing the research project, it was subsequently hypothesized that these factors would affect levels of intra-group trust amongst students, which in turn would have an effect on student team performance. Figure 1 diagrammatically summarizes the research model subsequently developed to frame the research conducted.

Figure 1: Evaluating Antecedents of Student Willingness to Become Effective Team Members

Individual Factors

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 (i.e. valuing co-operative norms, altruism) and identity salience (i.e.. maintaining one's self concept through affiliation with others). However, as Eby and Dobbins (1997: 277) conclude, researching collectivism also involves researching related variables such as task control and the need for social approval. Self-efficacy for team work refers to beliefs about the expected performance for a particular task and can be applied to individuals, groups, organizations and nations (Bandura:1977). Thus, information on this item would contribute towards understanding students' perceptions about their ability to handle the tasks required in completing team projects.

Experiential Effect

In addition to individual factors and self-efficacy, it was hypothesized that team performance would be affected by the experiential effect of working in teams. This was particularly in relation to other team members' contribution, assessed by perceived loafing, anticipated lower effort and the sucker effect (Mulvey & Klein: 1998). Perceived loafing is when one or more group members are perceived as contributing less than they could to the group (Comer: 1995). The negative effect that this can have on group members' motivation can subsequently lead to an anticipated lower effort. The 'sucker effect' is when group members may reduce their own effort rather than carry members engaged in 'loafing'. It was hypothesized that the cumulative effects of these variables influence intra-group trust, which in turn affects overall team performance.

Intragroup Trust

Within teams, a source of conflict affecting propensity to trust is task conflict. This is a perception of disagreement among group members about their decisions and involves differences in viewpoints, ideas and opinions (Simons and Peterson: 2000: 102). Task conflict leads to relationship conflict, which is defined as a perception of interpersonal incompatibility and typically includes tension, annoyance and animosity among members (Simons and Peterson: 2000: 102). Both task and relationship conflict affect intra-group trust, which in turn affects team performance. Items selected to assess intra-group trust were primarily sourced from Simons and Peterson (2000).

Results

A 7 point Likert scale ranging from strongly disagree (1) to strongly agree (7) was used in all questionnaires. These were administered at key stages during the 12 week tutorial programme by the tutor. Randomly selected focus groups were conducted by one of the researchers not involved in teaching in any of the units undertaken by students.

Survey one was administered one to two weeks after student team formation. The aim of this survey was to evaluate the pre-team attitude of students towards team-based projects. High ratings emerged to confirm students' propensity towards individualism as well as task locus of control, or rather a belief that their success was due to their own efforts as opposed to the efforts of others. For instance, approximately 65 per cent said that they would prefer to work alone (individualism-collectivism), and 92 per cent said that their success is entirely due to their efforts (task locus of control). In addition, low ratings emerged on social approval measures. For instance, 64 per cent indicated that they would rather be themselves than be

'well thought of' by others and only 19 per cent said that they would change their opinion to please others.

However, high ratings also emerged on the self-efficacy for teamwork variables. Approximately 88 per cent said that they can work effectively in a team setting and 74 per cent indicated that they could effectively co-ordinate the activities of a team. In summary, while students preferred to work individually on academic tasks, at the same time they felt that they had the necessary skills to complete team projects.

Survey two was administered mid-way through the team project in week six of semester. The aim of this survey was to evaluate the impact that team work experience was having on team member performance: for example, whether student performance was affected by a perception that others were putting in less effort than they were (otherwise referred to as social loafing). As Table 1 summarizes, the research highlighted low levels of this experiential effect on individual student performance. In other words, individual student performance was not significantly affected by a perception that others may not have been contributing as much as they were.

Table 1: Summary Table Assessing Experiential Effect

Variable	Item	% Agree
Anticipated Lower Effort	• Some of my team members are putting in less effort than they could, so other team members will not try as hard as they could.	18.3%
Sucker Effect	• Others in my group are not trying their best on this project, so I'm not trying my best either.	9.2%
	• Because other group members are not trying as hard as they could, I am not working as hard as I could on this project.	11.0%

Finally, measures aimed at assessing intra-group trust were administered in surveys two and three. This was to gauge whether there was a change on these measures over the life of the team. As Table 2 highlights, there was an improvement in overall terms on factors of intra-group trust where student ratings on whether they could trust other students improved over the life of the team. As the discussion highlights, noting this improvement across the two surveys was an unexpected research finding.

Table 2: Summary Table Assessing Intra-group Trust

Item	% Agree after 6 weeks	% Agree after 10-11 weeks
• Members of my team show absolute respect for each others competence.	78.1%	76.6%
• Members of my team expect the complete truth from each other.	74.2%	81%
• Members of my team show absolute integrity.	75.5%	77%
• Members of my team are all certain that we can fully trust each other.	65.1%	77.1%
• Members of my team count on each other to fully live up to our word.	77.7%	80.1%

Discussion

The results confirm the presence of a strong individualistic culture at the beginning of a team project, with most students indicating a preference to retain control over completion of a task, rather than having to co-ordinate academic work with others. High ratings on the individualism-collectivism scale and task locus of control, coupled with low ratings on approval motivation items confirms this finding. In other words, students preferred to retain task completion and were not affected by others' opinions of them. As Y said, *'I prefer individual (projects) I think 'coz ultimately it's your degree and it's your work that you have to get done and you do have to compromise with others for the results you want.'* (Y, FG, 20 September 2001).

Focus group discussions with a sample of students from four different undergraduate units confirmed this picture. For instance, when asked about mark allocation for team projects, students complained that assessment for the team project had limited the scope to reward individual effort. As student X said, *'At the end of the day, you know, it's an individual mark and you know, we compete against everybody else. So I don't think they should weight these group assignments so much.'* (X, FG, 20 September 2001).

However, while the research confirms that students preferred to work individually, at the same time students rated their own team work abilities highly. In other words, students had confidence in their own skills to effectively complete team projects. In addition, ratings reported in Table 1 coupled with the improvement on measures investigating intra-group trust reported in Table 2, suggests that students also believed that their fellow students contributed to the best of their ability to satisfactorily complete the team project. Furthermore, focus group discussions with students highlighted a perception that team projects would assist them develop both 'soft ' and 'hard' skills such as:

- Managing diversity and cultivating tolerance.
- Managing different perceptions and expectations across variables such as culture and degree expectations.
- Managing conflicts.
- Managing 'group-think' (confirming to the dominant idea within the group).
- Managing task focus.
- Managing time.
- Managing goal setting.
- Preparing for the world of paid employment.

In summary, it appears that the research findings present a more complex situation than researchers anticipated, when framing the original research question, 'what are the factors affecting student willingness to be involved in team projects?'. Focus group discussions nonetheless helped unravel the variance between survey results indicating positive attitudes to team work and perceived negative attitudes that had influenced the original question. When asked what were the obstacles facing them in managing team projects, responses included the following:

- Managing the motivation levels of team members.
- Defining common outcomes.
- Managing conflicts.
- Managing people with different working styles that make co-operation difficult. For example, people who have different perceptions of meeting assignment deadlines.
- Managing team members' communication styles. For example, irrelevant conversation, withdrawn behaviour, and outspokenness.

Reviewing these responses suggests that matters related to interpersonal skills such as communication, negotiation and conflict resolution are the major obstacles facing students in managing team projects, not students' predisposition towards working in team-based projects. Thus, when seeking to answer the question 'what are the factors affecting student willingness to be involved in student team projects?', one answer from this preliminary research appears not to lie in the team project itself, or in student attitude towards teams, but rather in students' degree of interpersonal skills in managing the 'complex web of attitudes, understanding and behaviours' (Jacques:1991) associated with working in teams.

However, in addition to these factors the research implies a further aspect of student team work which is important to address. That is, while seemingly confusing in relation to the original research question, one interpretation of the findings on experiential effect (see Table 1) and intra-group trust (see Table 2) is that the 'secret' to 'success' of team projects lies in fostering positive outcomes on both these variables. That is, if team projects can be managed so that students have a positive experiential effect and improved levels of intra-group trust, then student team performance may subsequently improve. Doing so may require proactively addressing the list of interpersonal skills that students themselves have identified.

Conclusion

In conclusion, preliminary results from the research conducted thus far indicate that while an individualistic culture is evident amongst students, at the same time students display positive attitude about their own abilities to complete team projects. In addition, students are positive about the contribution that their fellow team members make to team projects. Thus, while seeking to answer one question, the research findings have generated another. That is, why do team projects appear problematic to students; in other words, why is there a perception that *'team members (will) bring you down dead'?* (Y, FG, 20 September 2001). The research suggests that this is an attitude that may be associated with students in their pre-team experience: that is, before they embark on a team project. The research further suggests that if aspects such as the experiential effect (as described) and intra-group trust can be fostered, student performance on team projects may improve.

Responding to these challenges requires proactive management of student team projects. While this may require addressing development of specific skills such as communication, negotiation and conflict resolution skills, at the same time it also requires a more formalized and interventionist approach to managing student team projects. In response, a staff and student manual on managing student teams will be developed. This will include activities targeted at assisting students develop interpersonal skills as well as assisting staff to manage team projects.

This manual will be trialled during 2002. In addition, the research reported here is the first phase in an ongoing research programme. It is intended to continue canvassing student opinion about working in team projects in an effort to keep unravelling the complexities and challenges in assisting students convert team work into a positive experience.

The imperative to continue addressing team work competencies is clear given that forty seven per cent of workplaces surveyed for the 1995 Australian Workplace Industrial Relations Survey used team building in managing workplaces (Morehead et al: 1997). Students will undoubtedly end up as team members and team managers in workplaces of the future. Equipping them to effectively manage this task is fast becoming as critical a life skill as possessing key knowledge competencies. Just as universities facilitate student expertise in the latter area, it is becoming a responsibility to also facilitate student expertise in the former.

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