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Group work for freshmen students: a positive learning experience?

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Group work for freshmen students: A positive learning experience?

Abstract

Group assignments have been used in tertiary education for decades. However, its feasibility in a class of multi-skilled freshmen with diverse educational cultures was a point of concern. This paper studies the effectiveness of a newly introduced group project on the learning habits and outcomes of freshmen students. Group assignments should be devised so as to promote collaborative learning and should not be a means to divide work. Especially with young students the teacher has to play an active role monitoring groups' progress and ensuring that work is divided equally and rationally so as to maximise learning for every group member.

Key words – collaborative learning, group assignments, educational cultures, positive learning experience

1 Introduction

Two of the greatest challenges that educators face in the undergraduate classroom today are the increasing student numbers and the heterogeneity of the student body. This affects all aspects of teaching and learning and assessments in particular. Educators are increasingly using group assignments to assess students in large classes. The merits and demerits of group work for students have been discussed elaborately. Comments have ranged form the positive bearings on a future career to the validity of giving individual degrees for group effort.

Group work, in general, has been proven to have many benefits for students as it replicates the work place, develops their communication and survival skills, encourages cross-cultural understanding and relationships and so on. However, group work must be prescribed judiciously based on the maturity, skill level and educational and cultural background of students. The current study attempts to assess the feasibility of using group work to assess freshmen students in a Study Skills class.

The rise in student numbers has lead to constant revisions of the course content and assessment types. The course that was initially planned to cater to 20 students is now taught to over 400 students. Individual assignments had to be replaced with group projects as tutorial sizes have grown to over 50. The educational and cultural backgrounds of the students are diverse and this was a cause of apprehension for the teacher. The main points of concern were

1) Are freshmen students ready for group assignments considering their age and skill level?

2) Would group work be successful for major assignments without prior training and experience?

3) Would students from different educational cultures have different levels of difficulty with group work?

4) Would group work be successful in a multicultural milieu with a majority of third culture students? and

5) Will group assignments encourage freeloaders?

2 Literature Review

As mentioned earlier, group work is a subject that has been studied extensively. The studies and analyses most relevant to the five areas of concern stated above only are looked into here.

Johnson, Johnson, and Smith (1991) reviewed over 600 studies conducted during the past 90 years "comparing the effectiveness of cooperative, competitive, and individualistic efforts" and conclude that "more is known about the efficacy of cooperative learning than about lecturing, departmentalization, the use of instructional technology, or almost any other aspect of education. The more one works in cooperative learning groups, the more that person learns, the better he understands what he is learning, the easier it is to remember what he learns, and the better he feels about himself, the class, and his classmates." In '*Tools for Teaching*' Barbara Gross Davis (1993) remarks that the best way for students to learn is by being actively involved in the process.

It is necessary to understand the limitations imposed by previous educational systems and cultural patterns on the student population before subjecting them to any novel study pattern. The fact that Freshmen students are highly impressionable coupled with the need to develop healthy study patterns for future make it important to encourage good learning practices. Volet and Kee (1993:3) found that initial differences in the approach to learning between local Australian students and newly arrived Singaporean students disappeared by the end of their first semester of study in Australia. The initial year is thus crucial.

Though 92 nationalities are represented in the student body a majority of the students are Asians and Arabs. Asian students are perceived as belonging to an education culture that does not encourage free thinking or communal learning. They are classified as passive, rote learners, which generates a surface approach to learning. However, studies by leading authors like John Biggs (2000) have successfully challenged the stereotyping of Asian students. Gerstman and Rex (2001) realistically evaluating the status quo comment that "research on student populations to determine whether a particular culture has a predisposition to an approach to learning has provided mixed results".

As mentioned earlier, students from the Indian sub-continent and the far-east are stereo typed as rote learners who lack critical thinking skills. However, John Biggs busts this myth in his book 'Teaching for Quality Learning at University' (2000). Biggs points out that Confucian heritage cultures like those of China, Korea, Japan, Singapore and Hong Kong "are typically lower on surface and higher on deep than those of Western students" (p126). He explains that there is a need to distinguish between rote and repetitive learning. Repetition is to aid understanding "to ensure correct recall and here it works along side meaning not against it" (p127). This is applicable to Indian students too as the Sanskritic tradition has its roots in repetition. Memorisation was the first step towards understanding in every oral tradition. Since the majority of the students in my classroom are Asians understanding this stereotyping is important.

The issue of feasibility of group work in multi-cultural systems is considered next. Freshmen students are used to working with homogenous groups in their schools and may find it extremely discomforting to work with students

from other cultures. One of the prominent reasons to promote group work is to develop cultural sensitivity that is needed in the work place. Multicultural skills are essential in the work place and in the neighbourhood. However, students do not pick them up naturally by co-existing in a multicultural environment. Summers and Volet (2008, p357) comment on a recurrent pattern found globally "despite the increasingly multicultural nature of university campuses, the most typical pattern is one of minimal interaction between students of different cultures." It is necessary then to find strategies that will enable students to perform effortlessly in heterogeneous groups.

Over 50% of Freshmen students in the context studied come from Indian and Iranian educational systems that do not practice progressive western learning strategies like collaborative learning. Practitioners and researchers agree that it is essential to educate new students about the need for group work before they commence with the work. As Robertson (1990, p196) observes, "If cooperative work is to be successful, cooperative group skills must be taught, modelled an discussed". This helps to bring on an equal platform students with different exposures to group work. Induction into group work also helps to build the right attitude and develop much needed motivation. The Centre for the Study of Higher Education (2007) has produced a resource called Assessing learning in Australian Universities where they provide 5 practical assessment guides, including one on Assessing group work. Teachers are advised that "If students are informed about the basics, they are more likely to understand the rationale for group work in their subject. As a result, they will also be more likely to enter their groups with the attitudes, expectations and motivation necessary to engage at a high performance level".

Grading group work has always been a contentious issue. Though students are expected to contribute equally that is only an ideal scenario. There is always the issue of a hard worker bearing the load of the whole group and freeloaders riding on others shoulders getting better grades than they deserve. When new students are put in a scenario where they do not see a fair system of grading this can affect their learning process.   Heathfield (2003,133) in his article 'Group-based Assessment :An Evaluation of the Use of Assessed Tasks as a Method of Fostering Higher Quality Learning' writes that "the anecdotal history from students was that of high stress levels whenever assessed group work was encountered and unfair grades as a result of this process". Many educators alleviate this problem by including an individual marking component or peer assessment of individual contribution. Students are sometimes asked to submit summaries which throw light on their contribution.

3 Research Context

As mentioned earlier, the context of this research is the off shore campus of an Australian University in the Middle East. This study was prompted by the rise in student numbers at the freshmen level which necessitated the inclusion of group assignments in a Study Skills course. However, the teacher was apprehensive about student readiness for group work. The subject aimed to teach academic skills necessary to handle assignments at university and as such the focus was on research and essay writing. The individual essay assignment was changed to a group essay and a group presentation was introduced. To facilitate easy work distribution the teacher suggested

guidelines for the division of work among group members. Each student completed an allocated task that contributed to the final group product.

The assignment required students to choose a topic from those listed, collaboratively research, write an outline and then an essay of 1000 words and also make a presentation to their tutorial class. Students were allowed to choose their topics as well as their group members to give them a feeling of freedom and autonomy which it was hoped would motivate them and make them more responsible. The assignment would help students to achieve the Graduate Attributes like 'informed', 'responsible', 'independent learner', with 'effective communication skills'.

In the very first tutorial students worked on an ice breaker that involved the whole class. An informal induction to group work was given and it was stressed that it was important to get to know class mates as they would have to work together in many subjects on group projects. In the first Lecture the subject outline was handed out and students were informed that hey had to complete group assignments as part of the course. Informal cooperative groups worked on un-graded group work through out the course to make them team ready. The group project was divided into stages and the students tackled progressive stages every week. After another orientation to cooperative learning, students are asked to from groups and choose a topic for the argumentative essay. They then proceed to write a theses statement and a brief outline. The outlines are corrected and suggestions made by the tutor. Students are expected to submit completed outlines with in-text citations the following week. This was to be developed into a draft essay which was to be submitted for correction the next week. The week after, students were to prepare power point slides from the outlines for presentations due the week after. Only 10- 20% of the groups followed this pattern.

4 Research Method

4.1 Qualitative data

A focus group interview was conducted of 8 students and their responses were recorded and transcribed. Only one student had not worked in a group before. They were of diverse nationalities and skill levels and that is reflected in their responses.

Some relevant excerpts are added below.

To the question - What do you think about group work? The responses were -

Student A -horrible- you can't be independent, .. others would like to give their own opinion you will have to agree with them you can't just do it on your own. If someone is inefficient it brings the group down.

Student B - But that is not how a company works. When you get out of college "unfortunately" you have to work with a group…

Student A - I don't think you should become dependent on others …

Student B - It is not becoming dependent, it is learning to work with a group, learning to compromise…

Student D - I have written many essays on my own so why we need group now

Student A, a highly motivated student and student B who had worked in groups before and was currently in a "bad' group dominated much of the conversation. Both seemed to consider group work a necessary evil.

When asked if they preferred to work with friends the responses were -
Student A - they are my dear friends. I don't want to spoil my relationship with them.

Student C- Yes. It is easier to speak in my language

Student A- most of the people who prefer people who speak in their language are not good in English…

Student B- we will get ideas from other nationalities . They will look at the topic in a different way.

About working with difficult people the comments were -

Student A - You have to be with a difficult person at least once so you will learn…

Student B - you have to handle such people in future

Student C - If they don't learn teach them the hard way, exclude them

Student A - coordinate with them they just have to follow what we tell them

It is clear that students had different perceptions of group work depending on their academic levels.

4.2 Quantitative data
Three sets of questionnaires were used to evaluate student responses to group work. The first was used prior to the commencement of work on the group project. This was to evaluate student perceptions and attitudes to group work in general and to study if they were ready for collaborative work. The second was used after the first stage of the group project – the outline draft submission to monitor changes in perceptions. The third was used after the group presentation which was the last stage of the group project. The sample consisted of 60 freshmen students enrolled in the course. All questionnaires contained closed questions and students had to indicate their views on a five point Likert scale which was completed anonymously.

4.2.1 Data Analysis Questionnaire 1

There were 15 questions on this questionnaire and the responses are summarised below.

Table 1 – Analysis of questionnaire 1

1. Have you worked on group assignments before you joined UOWD?	Yes – 73%		No- 27%
2. If you have worked on group assignments before, did you enjoy it?	Yes – 90%		No- 10%
3. I have anxieties about working in groups for the essay and oral presentation in ARTS015?	Strongly agree/ Agree 38%	Neutral 46%	Disagree/ Strongly disagree 15%
4. I am anxious about being part of the 'wrong' group.	46%	23%	31%
5. I would prefer to choose my group members myself.	57%	30%	10%
6. I would prefer the teacher to choose my group for me.	14%	33%	49%
7. I would prefer my group members to speak the same first language as I do	24%	26%	50%
8. I would prefer my group members to belong to the same nationality as me	14%	35%	51%
9. I would prefer to work with students smarter than I am.	39%	46%	13%
10. I prefer to be the smartest person in my group.	13%	46%	39%
11. A group will function well only if it has a leader.	63%	23%	11%
12. A group will function well only if it meets regularly.	83%	10%	4%
13. Learning to work in a group is important.	87%	7%	2%
14. Working in a group will help me score better grades than if I worked alone.	63%	23%	14%
15. The teacher should monitor groups' activities.	60%	27%	11%

In spite of the teacher expecting the students to be unfamiliar with group work 73% of them had worked on group assignments in school and 90% of them had enjoyed it. It was reassuring that students were not totally new to the concept and procedures of collaborative work. However, 38% had anxieties about group work. One cause of the anxiety could have been the fear of being in the 'wrong' group as 46% of students indicated so. Linked to this, 57% said they prefer to choose their groups themselves compared to 14% who thought the teacher should choose the groups. Though the teacher expected most students to want to form groups with peers who spoke the same first language only 26% desired it and only 14% wanted to work with peers from the same nationality. In this study, contrary to the norm, as discussed in the literature review students did not show any affinity to form groups with students who spoke the same first language or belonged to the same nationality. What was more important was that they were with 'friends'. It was observed that students congregated with their friends in class or tended to make friends with

those who sat near them. The same seating pattern is followed through out the course. This could be because most students in this context are third culture kids as opposed to international students who are thrust into a new culture. The term Third Culture Kids or *TCKs* or *3CKs* was coined by sociologist Ruth Hill Useem in the 1960's and refers to someone who as a child has spent a significant period of time in one or more culture(s) other than his or her own. They thus create a third culture that blends features of their birth culture and the culture in which they are raised. As most students in the study were children of expatriates residing in the Middle East growing up in a culture that is alien to their own and heavily influenced by the culture of their peers they were open to working with students irrespective of differences in first language and nationality. Most students spoke English and so language was not a barrier. Majority of the students seemed to have a good understanding of the benefits of group work. 63% agreed that a group would function well only if it had a leader, 83% believed a group will function well only if it meets regularly, 87% believed that learning to work in a group is important and 60% responded that the teacher should monitor groups' activities. So students in general had positive expectations about group work and this was a good start. 63% believed that working in a group would help them score better grades than if they worked alone. This was a self fulfilling prophecy as a comparison of grades for the session studied (Autumn 2008) with that of Autumn session in 2007 would show. The average grade for the group essay in 2008 was 70% while for the individual essay in 2007 it was 63%. However the highest grade in 2008 was 88% while in 2007 it was 98.5. The lowest grade in 2008 was 56 while in 2007 several students did not submit their work. It was not clear if it was positive group dynamics at work or other forces as referred to by Mike Heathfield (1990,p137). Heathfield remarks "we had two primary concerns about the grading of assessed group work. Firstly, that weaker students were being carried by their group and receiving grades far beyond their individual capacity. Secondly, more capable students were responsible for 'working' the group and producing the assessment item and this extra burden was not reflected in their grades." Group work thus can have a negative effect on capable students. It is also important to consider if this scenario replicates the work place were you cannot expect to be 'carried' by your colleagues.

4.2.2 Data Analysis Questionnaire 2

Table 2 – Analysis of questionnaire 2

1.Will you be able to write an outline on your own?		Yes 73%	No 27%
2.Did you meet as a group outside class to work on the outline?		76%	24.5%
3. Did you decide how to divide the work in tutorial 6?		83%	17%
4. Was the work divided equally?		85%	15%
5. Working with my group was easy.	Strongly agree/	Neutral 31%	Disagree/ Strongly

	Agree 66%		disagree 2%
6. I could have worked better in another group.	11%	46%	42%
7.The teacher should have selected group members.	18%	26%	55%
8.It is good to be in a group with friends	51%	41%	8%
9.Group work makes students more responsible.	72%	20%	8%
10. It would have been easier to work on the outline on my own	33%	34%	33%

The second questionnaire was distributed after the first stage of the project when the outline draft had been submitted. Only 15% of the groups had submitted at least partially completed outlines but 73% said they could write an outline on their own. It can be explained as general student nature which leads them to believe they know what is expected of them without completing the work. 76% said they met outside class to work on their outline. Only 66% agreed that it was easy to work with their group. And 11% believed they could have worked better in another group. In response to the question 'I would prefer the teacher to choose my group for me' in the first questionnaire 14% agreed but this number rose to 18% in the second survey. 72% still believed that group work made students more responsible. 33% responded that it would have been easier to work on the outline on their own which raises concerns about the pressure that group work exerts on participants.

4.2.3 Data Analysis Questionnaire 3

Table 3 – Analysis of questionnaire 3

	Strongly agree/ Agree 63	Neutral 28	Disagree/ Strongly Disagree 4
1.Will you be able to write an essay on your own?			
2.Working in a group has helped me to learn better	78	25	7
3.It would have been easier to work on my own	17	39	44
4.Did you meet as a group outside class to work on the presentation?	69	15	16
5.Was the work divided equally?	62	23	13
6.It is important to learn to work in a group.	86	11	2
7.My group members did not listen to me.	6	26	67
8.I had the best ideas in my group.	16	67	17
9.I look forward to working with the same group.	50	32	17
10.I enjoyed working on the group assignment	70	22	9

The third questionnaire was given to students after the project was completed. Students were asked to present their topic to their tutorial group and hand in portfolios to the teacher. When asked if they would be able to write an essay on their own only 63% answered in the affirmative as opposed to 73% who responded that they would be able to write outlines on their own. 78% believed that working in a group had helped them to learn better. As opposed to 33% who responded that it would have been easier to work on the outline on their own only 17% had a similar response about the essay probably as it was a longer and more complicated process. 31% did not meet as a group outside class to work on the presentation which raises many concerns about the effectiveness of group work. This showed a 7% increase from the response for a similar question on questionnaire 2 (Did you meet as a group outside class to work on the outline?). Crisp et al (2007) cite a similar situation in their study 'Pros and cons of a group webpage design project in a freshman anatomy and physiology course'. "Although students were instructed to combine their pages with those of their group members, one student said, "I never saw what my group member's pages looked like." Apparently, many students did not look at or learn from their fellow group members' pages because of either time constraints or lack of interest." This defeats the whole purpose of collaborative learning and can only be termed as division of work.
 Only 13% complained about the unequal division of work. And only 6% said that group members did not listen to them. There was overall unity and positive group dynamics was at work. In spite of this only 50% look forward to working with the same group.16% asserted that they had the best ideas in their group. Only 9% did not enjoy working on the group assignment which shows the problem was with the group not with the project. Though 90% of students had enjoyed working on group projects in school by the end of the first group project at university that number fell to 70%.
Summers and Volet (2008, 362) observed a similar trend in their study of freshmen - " the experiences students are having as they progress through their tertiary studies are not leading them to view mixed group work more favourably." It is essential for students to have positive feelings for group work as it is inevitable in higher classes and in their career. Steps have to be taken to alleviate the pressure on students that group work produces as it mars their learning experience.
The most positive outcomes of the project was that unlike in previous semesters no student failed in the assignments. It was not clear whether they were motivated or coerced by the group members. It was also observed that every student who repeated the course had problems with their group as they did not submit their work on time or did not do nay work. The teacher constantly advised the groups to report slackers before the due date and 15% of groups complained about under performing members.

5 Conclusion
The results of this study allay most of the initial fears of the teacher about the feasibility of group work for freshmen students. However, it is vital to ensure that group projects encourage collaborative learning and not just division of

work. Collaborative learning not collating of individual work must be ensured. This could be done through supervised work in the classroom. The teacher should also constantly monitor groups' progress and redress grievances. The teacher's involvement is essential as otherwise students could feel that they are learning from peers not from the teacher who is supposed to 'impart' knowledge. The work should be divided equally and rationally so that all students learn all parts of the process. It will help avoid burdening the motivated students and exert pressure on freeloaders. Students could also be asked to submit short individual pieces of work to gauge their understanding. The exam should contain questions pertaining to the group project to ensure active learning by all students. The draw backs were not with the group assessment method but with the process. In short, it would be feasible to use this group project in future courses provided the process is streamlined to ensure contribution from all group members. This would involve completing part of the work in class and a more rational division of work among group members. It is also necessary to study whether the popularity of group work and the increase in grades was due to division of work or because students actually learned from each other and motivated each other.

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