

MULTICULTURAL GROUP-WORK: THE GROUP ALLOCATION PROCESS

Dr Phil Kelly¹

Liverpool Business School, John Foster Building, 98 Mount Pleasant, Liverpool, L3 5UZ, UK

Growing internationalisation and globalisation increases the multicultural composition of the university classroom. Consequently, educators face new problems when utilising teaching techniques such as group work. Arguments for the inclusion of multicultural group work include transferable skills and benefits associated with the group learning *process*. There are also arguments against the use of multicultural group work: culture-based education theories suggest some students dislike group work and diverse groups are conflict laden, making social cohesion and communication problematic. An initial empirical study of multicultural student group work was conducted. This study revealed significant insights into the group allocation process and affective outcomes and between affective outcomes and performance. Findings supported the conclusion that the way members are allocated to a group impacts upon both affective and performance outcomes. Following the study, practice changes were made to the way group work was used on the MBA programme at Liverpool Business School. The effects of the changes were subsequently investigated. A case study describing the use of group work on the programme will be presented, with particular emphasis placed upon the group formation process and the application of simple technologies to aid the practitioner in creating multicultural groups.

INTRODUCTION

The number of Internationally Mobile Students (IMS) – those who study in foreign countries where they are not permanent residents – has continued to grow over the past two decades. This has led to the internationalisation, globalisation and commercialisation of tertiary education. The Higher Education Academy (HEA) note there is much interest across the sector in the internationalisation of higher education, and the requirement for all graduates from UK institutions to benefit from an education which prepares them for the multinational and multicultural workplace. Consequently, in 2008, the HEA invited papers that address aspects of internationalisation. Global mobility trends affect the classroom by increasing the diversity of learners: students originate from different home countries, have varied cultural backgrounds; vary in age, and gender. The changes described create a new environment in the classroom which requires a change in approach to teaching and the use of group work in particular. Individuals from different cultural backgrounds will need to work together in a shared classroom. If this is to be a positive experience, tutors must be aware of differing approaches to multicultural group work and the potential consequences for learning, retention and progression. It has been argued that group work might not be an appropriate teaching method for certain national cultures. Others have argued that multicultural groups take time to develop the ability to work together and overcome cultural and communication barriers. Furthermore, if group work is adopted there are many contradictory theories about how groups should be formed (students allocated) and structured. Problems such as these are now at the forefront of many educators minds when confronted by the multicultural classroom. This paper documents a case study describing the use of group work in a specific multicultural programme (the MBA) at the Liverpool Business School (LBS). The researcher investigated general issues associated with multicultural group work through an empirical study of a diverse MBA population (see Kelly 2008). Based on findings, changes were made to the way groups were formed, group work taught and assessed on part of the programme. In a subsequent study, after the changes were made, the researcher investigated the impact of the changes on the student multicultural group work experience; this investigation focussed on the student perceptions of the experience. The case and associated studies are described in subsequent paragraphs, following a brief review of the literature.

¹ p.kelly1@ljmu.ac.uk

LITERATURE

As noted by Kelly (2008), despite having different tasks, most group activities subscribe to the same basic model — groups are formed, they perform a task(s) and then disband. Group work is both a way of learning (Slavin 1980, Biggs 1999 and Hernandez 2002) – the ‘process’ argument and something that should be learned – the ‘content’ argument. Similarly, there are arguments against the use of multicultural group work. Cultural theories of education suggest variation in learning styles and preferences (Hofstede 1984, Pun 1989, Johnson 1991, Jarrah 1998, Rodrigues, Bu and Min 2000); this may lead a student from one country to favour group work and seek control over learning activities whilst another may prefer more traditional techniques where the teacher takes control over learning. However, adapting learning styles and teaching to individual preferences has frequently been criticised (Coffield et al 2004 and Felder 1996). Secondly, Scholars have argued positive and negative performance impacts associated with multicultural group work. On the one hand there may be cognitive process benefits (McLeod and Lobel 1992); diverse groups have been associated with creativity, able to consider a greater range of perspectives, generating high quality solutions. On the other hand, members may find integration and communication difficult (Appelbaum and Shapiro, 1998). Diversity in ethnic background may have negative effects early in a group’s life; members face greater interpersonal differences, have lower levels of initial attraction and must overcome communication barriers. Such problems may have a bearing upon student motivation, absenteeism, progression and retention.

Once a decision is made to adopt group work the educator is then confronted with a myriad of implementation decisions and challenges. Several alternative methods for group allocation (assigning students to groups) have been argued: students may have authority to select their own group members (Blease 2006) or this activity may be undertaken for them by the tutor (Hernandez 2002). It is generally assumed that the former approach is more subjective, based on emotions, whilst the latter approach may be more objective. Cultural theory (see Hofstede 1984) suggests that students from certain countries will prefer the tutor to make the decision whilst others will wish to make it for themselves. Tutors, possibly enabled by technology, may use heuristics (Koppenhaver and Shrader 2003 and Baker and Powell 2002), the alphabet or random (Sharan and Sharan 1992) approaches to selection. Whereas heuristics may use algorithms scientifically, to spread traits proportionately and thus create diverse groups, random selection is seen as a means to afford everyone an equal chance of working together. Other scholars (Mahenthiran and Rouse 2000) have proposed hybrid approaches, distributing power and control of the process between students and tutors. Whichever approach is adopted, it is widely accepted that the *group allocation process* has important consequences. Firstly and directly, it determines the distribution of various structural variables within the group i.e. how many males or females there may be, their age and nationality. Secondly and indirectly it impacts upon *group cohesion* and cooperative structures– the extent to which group members pull together. In mixed *gender* groups males are (a) more active and influential than females, (b) more likely than females to engage in agentic activities (giving opinions and suggestions) but less likely to engage in communal activities, and (c) more concerned than females about resolving issues such as status, power and wealth, (see Levine and Moreland 1990, Koppenhaver and Shrader 2003, Joiner, Issroff and Demiris 1999 and Bennett and Cass 1989). Determining group size is also problematic, (Blease 2006). Gibbs (1992) suggests groups should be no larger than six to avoid coordination problems, social loafing and motivation losses, (Levine and Moreland 1990).

Whereas groups can eventually outperform individual effort, it takes time for them to develop the necessary structure to perform. Group-structure variables such as *stage-of-development* (Tuckman, 1965) and *cohesiveness* may be seen as preconditions for group performance argues Koppenhaver and Shrader (2003). The outcomes of group work fall mainly into two categories: (1) academic achievement (performance) and (2) group cohesiveness the *affective* variables such as liking of others and a feeling of being liked, (Slavin 1980). Group performance is the process and outcome of member’s joint efforts to achieve a collective goal or ‘the collective pursuit of a particular end’. Members of cohesive groups are more likely to talk and collaborate. Many studies suggest that cohesion affects group performance, (Levine

and Moreland 1990). Groups that do not pull together, on the other hand, may be categorised by conflict, leading to reduced performance (Appelbaum and Shapiro, 1998).

From this brief review of the literature, disagreement is evident regarding the use of group work and how groups should be formed. There is also a lack of theory concerning the use of group work in the multicultural classroom. Our study, described next, seeks to investigate group work theory in such a context.

CASE STUDY

In the following paragraphs we describe how group work has been investigated and implemented in the context of a diverse (over 90% of students coming from overseas) and multicultural post graduate classroom. Our study examines the use of group work within the MBA programme at Liverpool Business School. The study is described in three parts: (1) an initial investigation, (2) a qualitative description of a change to practice resulting from that investigation and then (3) a further empirical study to investigate student feelings as a result of the change.

STUDY ONE (EMPIRICAL SURVEY)

Kelly (2008) investigated the *group allocation process* and its consequences through an empirical study. Primary aims of the study were to address the related problems of whether, when and how to use, form and structure groups for teaching and learning in the multicultural context: the *adoption* problem; the *allocation* problem and the *structural* problem. He found the way students were allocated to groups had significant impact upon *affective* outcomes. Data suggested the more a student considered the group selection process to be fair, the greater the affective outcome and as a result, the student felt more was learned, thus leading to better group performance. Significant relationships were used by Kelly (2008) to construct a relationship model, see Figure 1.

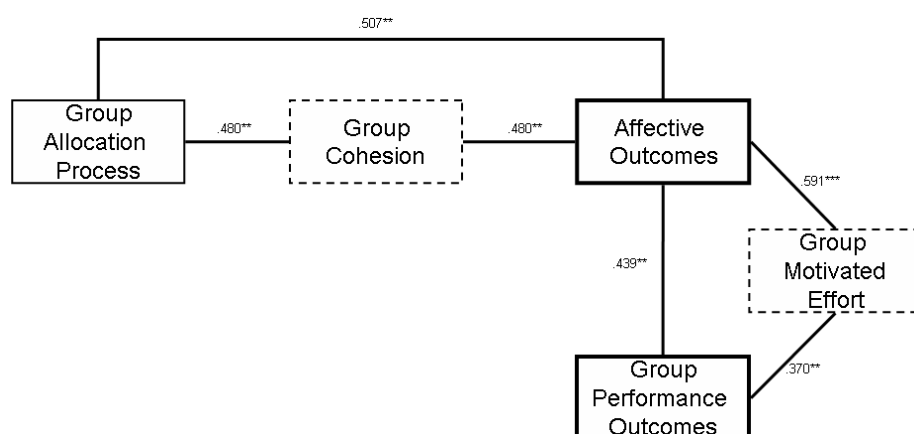


Figure 1 Relationship model (from Kelly 2008)

Whilst Coffield et al (2004) and Felder (1996) argue against excluding group work on cultural and therefore learning preference grounds, culture may be relevant in determining who makes early group allocation decisions; certain cultures prefer the tutor to allocate members to groups. Kelly (2008) found many first semester students preferred not to make such decisions by themselves. Despite this, he argues against complete tutor selection at the outset of teaching programmes. Following the study he concluded that the best group selection is to pair friends and then combine them to form groups rather than randomly assigning students to groups.

ACTION (CASE STUDY)

Following the first study, the researcher decided to adopt the shared allocation process, (the mixed pair approach suggested by Mahenthiran and Rouse, 2000) as the approach achieves student buy-in and a higher initial cohesion, resulting in swifter productivity and helps provide all students with a favourable team experience through an equitable approach. Students select a partner to form a pair and the tutor then combines pairs in a manner which meets diversity goals. This approach should also mitigate the risks associated with teacher intervention in the allocation process (students may blame tutors for poor performance).

At the beginning of the programme, the MBA cohort is divided into several smaller classes. The delivery team recognised a need to make each class as diverse (heterogeneous) as possible and 'spread' people uniformly according to diversity traits. They developed a simple spreadsheet program to assist with this. At the beginning of the first semester, each student is entered onto a spreadsheet which records their name, home country, gender and age. From this data a simple 'diversity' code is generated. The first letter of the student's country is copied as the first character of the code [using MS Excel's =LEFT('cell ref',1) trim function - LEFT returns the first character or characters in a text string, based on the number of characters specified]. Next the first character of the gender is added and a similar process can be performed for age. Once a 'diversity' code has been generated, the students are sorted, hence like students are situated next to each other on the spreadsheet list. The user specifies the class size and then a macro is used to allocate sequentially a class number to each student record. Class numbers are allocated sequentially thus separating out like students and distributing them into different classes. The list is then sorted by class and pivot tables are used to analyse the diversity of each class. At this point, manual adjustments can be made if necessary. The process therefore generates automatically several diverse classes of students from a single multicultural cohort.

Students are informed and can then attend their allotted class. At the first workshop, students are made aware of the group work policy, assessments and delivery plan. During the first quarter of the semester they are encouraged to work in randomly formed groups. The purpose of this is to enhance their group work experience and enable them to get to know peers. Throughout this period they are also taught group work theory and are encouraged to analyse and reflect on aspects of group work. Around week 4 or 5, assessment groups are formed in accordance with the hybrid policy. The groups then work together, primarily on the assessed tasks, for the remainder of the semester. They analyse a business problem and deliver a group presentation as one assessed component and then create a group report which reflects on the group work experience. Collectively this accounts for 50% of the assessed work; the remaining 50% component is an individual piece of written work.

STUDY TWO (EMPIRICAL SURVEY)

At the end of their first semester (and the taught module under investigation), a sample of students (N=34) were asked to complete a post-course survey, self-administered questionnaire, recording their education style preferences (teacher or student centric), feelings about the group work experience (through ten Likert scale questions) and group formation preference. Students from the multicultural cohort, based on mean responses and significant correlations between question items (see Figure 2), liked and learned from the group activities and judged them to have added much value to the course. Most viewed the hybrid selection process as fair, though a small number (n=6) did not. Group activities were seen as an opportunity to develop close friendships and groups were seen as motivators for members. Students who developed close friendships, liked group work, expended more effort and believed they learned more. Similarly, students who liked group work, believed group work added value to the course and students who considered the selection process to be fair were motivated by the group to put in more effort and believed they learned much as a result of the group activities.

The research instrument can be viewed in Kelly (2008)

Correlations

		e1	e2	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	gp_frm_pref
lecture style preference	Pearson Correlation	1	.270	-.188	.062	-.029	-.033	-.282	.161	.017	-.099	.054	-.058	.190
	Sig. (2-tailed)		.129	.294	.732	.873	.856	.119	.371	.925	.583	.764	.775	.316
	N	33	33	33	33	33	33	32	33	32	33	33	27	30
Actual lecturer style	Pearson Correlation	.270	1	.185	.158	-.171	.040	.187	.031	.085	.122	.277	.325	.126
	Sig. (2-tailed)	.129		.302	.379	.341	.823	.305	.863	.645	.498	.119	.098	.508
	N	33	33	33	33	33	33	32	33	32	33	33	27	30
1 Liked gp wk	Pearson Correlation	-.188	.185	1	.643**	-.116	.359*	-.431*	.082	-.000	.330	.600**	.496**	-.358*
	Sig. (2-tailed)	.294	.302		.000	.513	.037	.012	.644	1.000	.057	.000	.007	.048
	N	33	33	34	34	34	34	33	34	33	34	34	28	31
2 Valued gp wk	Pearson Correlation	.062	.158	.643**	1	.231	.402*	.312	.140	.167	.439**	.654**	.317	-.263
	Sig. (2-tailed)	.732	.379	.000		.189	.018	.077	.430	.354	.009	.000	.100	.152
	N	33	33	34	34	34	34	33	34	33	34	34	28	31
3 Variety	Pearson Correlation	.029	-.171	.116	.231	1	.102	.298	-.175	.617**	.203	.278	.264	-.145
	Sig. (2-tailed)	.873	.341	.513	.189		.565	.093	.323	.000	.249	.111	.175	.437
	N	33	33	34	34	34	34	33	34	33	34	34	28	31
4 Collaboration need	Pearson Correlation	-.033	.040	.359*	.402*	.102	1	.340	-.043	.071	.458**	.445**	.134	.025
	Sig. (2-tailed)	.856	.823	.037	.018	.565		.053	.808	.693	.006	.008	.495	.895
	N	33	33	34	34	34	34	33	34	33	34	34	28	31
5 Friendship	Pearson Correlation	-.282	.187	.431*	.312	.298	.340	1	.230	.344	.503**	.535**	.527**	-.292
	Sig. (2-tailed)	.119	.305	.012	.077	.093	.053		.198	.054	.003	.001	.004	.118
	N	32	32	33	33	33	33	33	33	32	33	33	28	30
6 Control	Pearson Correlation	.161	.031	.082	.140	-.175	-.043	.230	1	.113	.239	.215	.083	.165
	Sig. (2-tailed)	.371	.863	.644	.430	.323	.808	.198		.532	.173	.222	.676	.375
	N	33	33	34	34	34	34	33	34	33	34	34	28	31
7 Fair gp selection	Pearson Correlation	.017	.085	.000	.167	.617**	.071	.344	.113	1	.388*	.358*	.258	.291
	Sig. (2-tailed)	.925	.645	1.000	.354	.000	.693	.054	.532		.026	.041	.193	.113
	N	32	32	33	33	33	33	32	33	33	33	33	27	31
8 Gp Motivation	Pearson Correlation	-.099	.122	.330	.439**	.203	.458**	.503**	.239	.388*	1	.512**	.128	.106
	Sig. (2-tailed)	.583	.498	.057	.009	.249	.006	.003	.173	.026		.002	.516	.572
	N	33	33	34	34	34	34	33	34	33	34	34	28	31
9 Learning	Pearson Correlation	.054	.277	.600**	.654**	.278	.445**	.535**	.215	.358*	.512**	1	.480**	-.156
	Sig. (2-tailed)	.764	.119	.000	.000	.111	.008	.001	.222	.041	.002		.010	.402
	N	33	33	34	34	34	34	33	34	33	34	34	28	31
10 Fair grading	Pearson Correlation	.058	.325	.496**	.317	.264	.134	.527**	.083	.258	.128	.480**	1	-.407*
	Sig. (2-tailed)	.775	.098	.007	.100	.175	.495	.004	.676	.193	.516	.010		.043
	N	27	27	28	28	28	28	28	28	27	28	28	28	25
gp_frm_pref	Pearson Correlation	.190	.126	-.358*	-.263	-.145	.025	-.292	.165	.291	.106	-.156	-.407*	1
	Sig. (2-tailed)	.316	.508	.048	.152	.437	.895	.118	.375	.113	.572	.402	.043	
	N	30	30	31	31	31	31	30	31	31	31	31	25	31

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Figure 2 Study 2 - Post course survey correlation analysis

CONCLUSION

Globalisation results in an increase in IMS and changes the adult classroom environment. This has a bearing upon arguments for the use and goals of group work in the multicultural classroom. The first study of this case concluded it is important to both adopt group work in the multicultural classroom and have a group allocation process that both meets objectives and is perceived to be fair. Educators working in multicultural classrooms need to understand how to make group work contribute to their teaching aims. From both studies we conclude that group work can serve many purposes for both the teacher and learner. For the teacher it can be used as a vehicle to teach and assess (process) and can be a subject of teaching (content). For students, group work can be a source of friendship and support, leading to greater motivation and satisfaction levels which may manifest in learning, student retention, progression, performance and affective outcomes. Students show a more positive approach to group work when they consider the group allocation process to be fair. Their perceptions of what constitutes a fair process seem to be determined by the level of progress within a programme of study, their assessment outcomes, the resultant experience and the goals of group work. At the outset of studies a 'neutral' allocation processes such as the hybrid or algorithmic approach is favoured. Once students are familiar with their class mates they shift to a preference for self selection. In any event, the tutor must balance process demands with content. If group diversity is a goal then the tutor is likely to find intervention necessary and the hybrid approach a favourite. When multicultural group work is adopted, tutors should recognise that it can take several weeks and more for the groups to attain a state of cohesion commensurate with more homogenous groups. Similarly, multicultural groups require help in understanding group work processes – particularly when teaching a transferrable skill.

Future research

This study did not consider how adult learners actually interact in their contrived multicultural groups, particularly during the forming stage - a matter which lends itself to rich qualitative study. Such study may present useful guidelines to help make multicultural group work a success in teaching and learning environments from a cohesion viewpoint. We also believe there is a need to investigate and identify the determinants of group work affective outcomes

in order to generate advice for practitioners. Improvements in our knowledge of the factors that make multicultural group work more enjoyable should lead to better motivated students, more willing and able to learn through group work.

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