Abstract

This study explores whether randomly assigning group membership enhances the student learning experience. The paper starts with a critical analysis of the approaches to student learning within Higher Education and how these approaches conflict with findings from applied psychology on group behaviour. The study adopts a serendipitous qualitative methodology to explore how changes to assessment requirements can result in a more holistic learning experience. The findings suggest that students perceive the adoption of randomly allocated as an unnecessary risk to their performance within assessment as opposed to an opportunity to enhance their learning. This raises questions regarding the conflict that can exist within education between assessment and learning. The results suggest students operate in a 'comfort zone' which can be detrimental to their overall learning experience. Getting students to leave the comfort zone is a particularly stressful situation for both student and educator. Once students leave the comfort zone competencies that have been dormant surface and they are able to utilise and acquire a wider range of skills. Leaving the comfort zone also results in the creation of a critical incidence which can assist the student in developing their reflective capabilities. The results suggest that randomly allocated groups enhance both an individual's task capabilities and their teamwork capabilities. The paper concludes that the findings have significant implications for those involved in the design of assessment. The paper also provides an interesting commentary on the issues educators face when undertaking education research within a higher educational context.

Keywords: Group work, Team work, Holistic learning, Critical Incidence Technique, Qualitative research, Random allocation

Purpose

The purpose of this research is to identify whether randomly assigning group membership enhances the student learning experience for final year business students. It is proposed that randomly assigning groups will more accurately simulate the conditions third year undergraduate students will be exposed to when they enter the work environment. Simulating the conditions of the working environment has long since been a recognised problem in teaching Business and Management students (Mintzberg 1975, 2003 Stephenson and Weil 1993). In particular those with minimal exposure to the work environment find it difficult to contextualise class room taught theories of individual and group behaviour to the workplace and the students own specific context.

The research has been defined as a serendipitous study as the decision was made by the author to postpone the initial research at an early stage as a result of significant tensions between the cohort and the module leader who was also undertaking the research. This tension centred around the decision to randomise group selection within a summative assessment. This will be reflected upon later. However, the conditions of the research study continued even though the initial research design was postponed. By creating conflict though the study had inadvertently created a critical incident which is best defined as, an emotionally rich event that accelerates learning within those who directly participate in the event. As a research technique critical incidents have largely been utilised by Elizabeth Chell and colleagues (1998, 2004) largely within the understanding of behaviours and motivations of small business owners. It allows interviewees to reflect on critical experiences which fundamentally result in greater understanding of the self or perception adjustments (Chell 1998). The outcomes which followed the tensions resulted in the researcher believing it was important to capture the findings and write up the experience. However, because the research design was terminated at an early stage the researcher was unable to capture some of the original objectives of the study, in particular the opportunity to capture timely data of an empirical nature on students' group development and experiences. Nonetheless the researcher realised that the original ideas of the

experiment was producing some powerful and enriched learning within the student group, therefore, an inductive approach was adopted to explore these results and try to make sense of the changes in student learning through causal chain analysis. The term serendipity has been used within research to describe both outputs of research and also approaches to research. Robson (1998) for example refers to the 'serendipity factor' when describing how significant research findings can come about by chance or accident, namely when a researcher stumbles across a fortunate discovery within their field. Moses and Knutsen (2007) refer to serendipitous approaches as a more planned research approach in which the researcher sorts through empirical detail to follow a causal chain backwards from an observation of phenomena to determine the most probable cause. In empirical research serendipity is often used to describe the need for a researcher to adapt their research approaches when faced with changes within the context of the study which offer opportunity for greater insight (Holman et al, 2010). Within organisational studies it has long been acknowledged that the researcher must be willing to adjust their research design and also to monitor the environment in which the research is taking place for potential chance opportunities that may arise. Evans (1975) recognised that in field research it is very difficult to obtain the controlled conditions required for experimental research. To overcome this limitation when faced with unplanned situations that are somewhat out of the control of a research study the researcher should demonstrate adaptive capabilities, a willingness to adjust their research approaches and be well versed in applying different research methods to enable the effective capture of unfolding phenomena. This suggests serendipitous research to be when a researcher is able to adapt their approaches, demonstrate creativity in their application of research approaches and also an ability to be observant and reactive to events that may either restrict the research opportunities available to them or create new opportunities to undertake additional research.

Specifically this research will analyse the effects of randomised selection in group situations on student learning. In analysing these effects the researcher will adopt a holistic definition of

learning (Laird 1985). The basic premise of this approach is that the human personality consists of many elements 'the intellect, emotions, the body impulse (or desire), intuition and imagination' (Laird 1985, 121) that all require activation if the outcomes of learning are to be deeply engrained. Laird identifies that the learner is a complex individual and all the multi facets (intellect, emotion, intuition, imagination and spiritual) of their being need to be engaged in the learning process. Through tutoring the research sample for two years the researcher intuitively felt that the many facets of the students personalities were not being fully activated by the education process. The students, approaching the end of their education with demanding workloads had become strategic learners. They had now become focused on understanding what they needed to know for assessment at the expense of a more holistic learning experience.

There are two major motivating factors for this study. First is the opportunity to study how changes to assessment requirements can result in a greater, more enriched student experience. Second, the conflicting results of prior studies within the area (discussed below) tend to suggest a need for further research. The rationale for the study is that although group work is widely adopted in business schools the optimum way of structuring these activities to result in holistic individual learning is relatively unknown (Schullery and Schullery 2006).

The research setting

The module in which this research project was undertaken 'Managerial Decision Making' is a compulsory 30 credit level 6 module delivered on a BSc (Hons) Business and Management degree within a UK University that the author was previously employed at. The module is unique in its delivery of Decision Making as its' focus is not on Business Decision Modelling which is the common approach across Operations and Management Science focussed degree programmes but on the human decision making process. In particular, its' focus is more towards how human decision making can deviate from the rational, quantitative and systematic modes studied in more traditional

decision making programmes. The objective of the module is to enable students to understand the variables and contexts that can affect decision making within the workplace and society in general. By enabling the students to recognise the many facets of human decision making hopefully the students will be able to overcome some of the bias that can distort human decision making. In line with the principles of holistic learning the objective therefore is to not only to produce scholars capable of achieving high academic standards but also more capable and well rounded practitioners.

Learning to be effective in an organisational context

The module has five learning outcomes which are assessed across the following assessment strategies; a large group case study, an individual reflection, an individual essay and an exam. Learning Outcome 4 focuses on students being able to demonstrate a knowledge of the limitations and problems that can arise from group decision making and suggest measures that can be implemented to improve the effectiveness of group decision making. This particular learning outcome is one I felt students had struggled to demonstrate. Although a discussion of the effectiveness of learning outcomes is outside the remit of this paper the author recognises that effective learning is grounded in experience and critical reflectivity (Marsick and Watkins 1990) and as such when there is an opportunity to simulate or experience firsthand the phenomena being studied the curriculum should be designed to take advantage of this.

Business and Management university programmes have long been criticised for their inability to simulate the conditions which lead to effective learning (Mintzberg 1975, 2003; Stephenson and Weil 1992; Bruch and Ghoshal 2004). Mintzberg (1975, 61) specifically argued the limitations of teaching management in a traditional learning environment,

> Management schools will begin the serious training of managers when skill training takes a serious place next to cognitive learning. Cognitive learning is detached and informational, like reading a book or listening to a lecture. No doubt much important cognitive material must be assimilated by the manager to-

> be. But cognitive learning no more makes a manager than it does a swimmer. The latter will drown the first time she jumps into the water if her coach never takes her out of the lecture hall, gets her wet, and gives her feedback on her performance.

Mintzberg (1975) early on in his own career identified that the limitations of management training within the classroom was its focus on teaching of hard, functional capabilities at the neglect of what are commonly referred to as 'soft skills' such as dealing with complexity, ambiguity and uncertainty, communicating and working with others and accepting responsibility. In particularly he recognised the difficulties that accrue when practitioner learning and practitioner actions are undertaken in separate contexts at separate time periods. Bruch and Ghoshal (2004) argue that the key skills gap within practitioners is not knowing what should be done but an ability to take meaningful action. In essence some managers struggle to put their education and learning into practice. Stephenson and Weil (1992) argued that academic management development programmes portrayed management as a series of functional capabilities which teach students to undertake processes such as the design of a marketing strategy or a HRM policy. This approach teaches functional familiarity at the expense of organisational complexity by dividing the development from implementation. Arguably contemporary managers are spending more of their time in situations of unfamiliarity than the norms in which educators prepare them for. This has perhaps supported a significant reduction in the confidence in Higher Education to produce a graduate labour market capable of meeting the needs of employers (Elias and Purcell 2004). Therefore it can be argued that more than ever there is a need to actually remove students from situations which they are comfortable with and create conditions that are capable of slightly unnerving the student.

Team based learning

One of the methods of overcoming the aforementioned limitations has been the wide adoption of group work as a means to more accurately simulate the conditions of contemporary work

environments. Tutors usually have a two track objective for group based learning; the acquirement and mastery of subject specific knowledge and the development of group work skills (Schullery and Schullery 2006). Learning to work in conditions of interdependence and collaboration is deemed as one of the most important skills a person can develop to positively influence their employability and ongoing career success (Johnson and Johnson 1989, 32). This is largely a result of the wide adoption of teams as the primary method of work design.

To achieve and maintain levels of flexibility organisations have altered their habitual approaches of designing work around individual jobs to designing work around groups and teams (Ilgen 1999). Boxall & Purcell go as far as specifying teams as the, 'fundamental building block of the organization' (2003,1003). As a result of the perceived positive outcomes accrued from team based approaches within the workplace, business schools have followed suit by increasing the number of group experiences that a student has during their under and post graduate education. Chapman and Van Auken (2001) in a study of group work within business schools identified that on average students participated in eight different group projects during an under graduate business and management degree. Indeed the author of this paper undertook an informal analysis of the assessment strategy on the BSc (Hons) Business and Management at the University in which he was employed at the time of the research study and identified that only four compulsory under graduate modules did not contain at least one group based summative assessment. The majority of these modules are followed by the ubiquitous individual reflective assessment in which students reflect upon the group experience. The key question though is how effective are these group projects at developing students team based abilities whilst facilitating higher level learning opportunities?

Teams should not be considered as the most effective learning environment for all activities. Although team based approaches have become a primary component of organisational work design there are numerous potential liabilities which perhaps need to be considered when analysing the effectiveness of group based approaches to learning. To summarise, teams can become riddled with

internal conflict (Jehn and Mannix 2001), make riskier decisions than individuals (Lamm and Myers 1978), stifle independence and adaptability through conformity (Janis 1982), and result in a lack of knowledge sharing (Sniezek, Paese and Furiya 1990). The findings of Sprigg, Jackson and Parker (2000) in a study of the adoption of a team approach to work design demonstrated that the adoption of team based approaches for tasks that do not require a team based approach actually results in increased job strain, decreased well being and reduced productivity. Therefore it is worth considering whether the mass adoption of team based learning approaches is having a counterproductive effect on student skill attainment and student experience.

It is not only in the work place that teams are capable of counterproductive outcomes. Potential problems can be accrued from free riding students, grade inflation for weaker students or grade deflation for stronger students and an inability from the academic to be sure that all students have demonstrated the learning outcomes (Chapman, Meuter, Toy and Wright 2006). Chapman and Van Auken (2001) stress that academics need to make every effort to design group projects that are capable of overcoming the potential pitfalls associated with this particular mode of learning. However, whether academics fully emphasise the requirement for interdependence and member coordination or the making of individual attainment of goals dependent on the team functioning and achieving effectiveness is debatable. It is widely recognised in group work literature that for groups to be effective there has to be a significant degree of both task and outcome interdependence (Procter and Currie 2004). Task interdependence is when all group members are required to share tools, information and capabilities for the group to function effectively and outcome interdependence being when individuals are reliant on the collective rewards based upon collective performance. Van der Vegt et al (1998) identified that increased outcome interdependence is important as it helps groups work together. However, high outcome interdependence coupled with low task interdependence can result in increased stress and reduced effectiveness. Arguably the typical under graduate assessment has very low task interdependence and high outcome interdependence. Individual members often

carry other members and the majority of the work is often undertaken by the minority despite the outcome being shared by the group. As a student remarked in the interviews undertaken for this research, 'lets face it none of these tasks require a group I could just as much do it myself and to be honest that is what I usually do' (Anonymous 1 2010).

Therefore given that the group based approach is such a popular vehicle of learning within further and higher education it is important to understand how factors that influence individual learning can be adjusted to maximise the learning opportunity. This though is a sensitive area, if the academic directly intervenes in the group learning process perhaps as a group facilitator it would be counterproductive to the ethos of groups becoming self managed teams or it could stifle the development of group interdependence. A factor which the academic is able to manipulate though is the way group members are selected.

Group selection in student projects

The allocation of individuals to student work projects is an area which has received a degree of scholarly interest (Chapman et al 2006; Blowers 2003; Bacon, Stewart and Anderson 2001; Schulery and Schulery 2006; Connerly and Mael 2001, Mahenthiren & Rouse 2000). Connerly and Mael (2001) found that the spread between random or instructor led selection and student selection was even. Blowers (2003) argued that random group selection is more effective for student learning because it more accurately reflects the conditions they will work within following graduation. In contrast Bacon et al (2001) believe it increases the potential risks, leaving the possibility of students operating in functional groups purely to chance. The authors argue that random selection therefore is playing with students' education. For this reason Bacon et al (2001) argue that the process is completely unfair on the students. In addition, scholars also put forth the argument that the process results in inferior performance as opposed to when students can select their own group. Although these are valid findings it is worth considering Bacon et al (2001) came about this conclusion not

from experimental, empirical research but from interviews with MBA graduates asking them to reflect back upon their programme of study. Connerley and Mael (2001) in an empirical study were only able to find weak correlations between self selection and student satisfaction. A shared limitation of this study and the Bacon et al (2001) study is they tend to focus their outcome measures on student satisfaction. It is difficult to put forth a substantial argument that positively correlates student satisfaction with heightened learning experiences within group conditions. Certainly there is evidence outside of the educational context to suggest that a degree of conflict and intensity within a group context can heighten performance (Murnighan and Conlon 1991; Jehn and Mannix 2001).

Chapman et al (2006) in a quasi experimental study of marketing students found that randomly assigning groups resulted in slightly lower outcome ratings compared to self selected groups but the results did not show any significant difference. The main limitation of the study is that outcome measures are self reported and therefore there is no objective measurement of the quality of outputs such as the students overall grades. Schullery and Schullery (2006) undertook a quasi experimental study to identify whether homogenous personality groups performed any differently to heterogeneous personality groups. The study did include some objective outcome measures in the guise of student assessment marks and instructors' perception of group functioning. Their study identified positive grade outcomes were associated with both group homogeneity and group heterogeneity. Perhaps the greatest limitation of the studies practicality was that the scholars measured homogeneity based on personality through the Myers Briggs type Indicator. Although personality variance is deemed as an important construct in groups fundamentally constructing groups based on its variance is limited in practicality because teams in the work context are more likely to be constructed on the skills and abilities required for the task not their personality.

The literature review has identified that team work plays a significant role in student assessment yet the effectiveness of how it is facilitated within business schools is debatable. There is a lack of empirical evidence to support the proposition that variances in group selection significantly

influence group and individual performance outcomes and there has been a distinct lack of research which has ultimately focussed on the students overall learning experience in particular, whether or not the student project can be more effectively facilitated to produce greater learning outcomes. Within the wider group literature there is substantial evidence that a degree of psychographic variance in team membership can result in positive outcomes similarly there is also empirical evidence that a degree of tension and conflict can enhance group performance and learning (Jehn and Mannix 2001; Murnighan and Conlon 1991; Janis 1982). There is a requirement therefore to consider whether altering group selection methods can help instigate greater learning opportunities.

The present study

The rationale for the study is based on the author's observations of tutoring the cohort for the past two years. The author was aware that the opportunity to self select group membership coupled with experiences early on in their degree had determined friendships, work relationships and opinions on others. The author felt this significantly penalised their opportunity to acquire the practical and social skills required within the workplace.

The module 'Managerial Decision Making' looked significantly at aspects of how group familiarity can lead to in-group bias and out-group stereotyping (Hilton and Von Hippel 1996), the ignorance of minority views (Ng and Van Dyne 2001) and the adoption of minimally acceptable solutions (Hoffman and Maier 1961) all which can impair group decision making and effectiveness. This context therefore, allowed great opportunity to expose the students first hand to theories of group effectiveness through randomly assigning group membership whilst perhaps creating an opportunity for them to become aware of how bias was impairing their decision-making objectivity. This therefore, would result in a more holistic learning experience upon which the students would be able to reflect.

Research methodology

The previous studies summarised within the literature review that have studied the variance in learning outcomes as a result of group membership have largely adopted comparative, quasi experimental research strategies (Schullery and Schullery 2006; Chapman et al 2006). The ethical dilemma of undertaking quasi experimental research in the classroom largely rests on whether it is acceptable to withhold or withdraw something that could benefit a learner in order to prove its effectiveness. This would result in a potentially penalising effect on either the group who had the variable withdrawn or the group who had it available depending on the outcomes of the experiment. A close analysis of the papers that have used quasi experimental research to study outcome variance in groups show no real discussion of how they overcame these ethical considerations therefore I will propose a couple and consider the implications of these changes. The first would be to allow the students to choose whether they wanted to be in the control group and self select or be in the randomly allocated groups. Potential concerns of this is that the decision to self select or leave the decision to the laws of chance would largely be effected by the individuals personality which would result in variables within the analysis that would be difficult to identify and capture (openness to new ideas, pro-activity, extraversion). The second would be to use a formative assessment therefore reducing the risks highlighted by Bacon et al (2001) associated with random selection and also the risks associated with the consequences of manipulating variables for different groups within quasi experimental research. This was considered but my personal experiences of formative assessment is that I have been unable up to this point to get business students to take it seriously therefore the quality of the results obtained would be potentially limited.

It is not only on ethical grounds that the researcher questioned the effectiveness of quasi experimental research for achieving the goals of the project. The deductive approaches have produced mixed results and what correlations they have identified between group structure and performance outcomes are weak at best. The results suggest that perhaps the outcomes are more

subtle than are able to be captured using a traditional cross sectional quantitative study. Also perhaps the methodological approaches adopted by the previous researchers which have largely consisted of post event interviews fail to provide the accuracy of information required for such a study. The amount of time elapsed between the interview and the critical incidences could be up to 12 weeks, this would result in difficulties for the interviewee to accurately recall the true outcomes of the critical incidents that they are being required to reflect upon. If questionnaires are left until after the assessment has been undertaken student opinions will be significantly affected by their academic performance in the module. If they have scored poorly they would be more likely to score the learning experience as weak and conversely if they scored well they would be more likely to score the learning experience as high. Although this would not necessarily be the case, this depth of information would be difficult to capture through a questionnaire.

To overcome these limitations the original plan was to develop a temporal based research instrument in the form of a diary study. The advantages of the inclusion of diary methods into a research construct are that they minimise the time that elapses between the experience and its' interpretation. This spontaneous capture of rich data can complement the outputs of traditional research approaches (Reis 1994), and it can also reduce the biases introduced by retrospection as a result of elapsed time (Bolger et al 2003).It was initially conceived that all students would keep a diary to capture their experiences of the randomly selected group experience. These diaries would then be analysed by the student to allow them to accurately reflect on the group project as part of their summative assessment. The diaries would then be submitted as an appendix to their individual reflection and at that point the researcher would be able to analyse the data and identify students the researcher wanted to obtain further data from in the form of semi structured interviews. Despite the planning which had gone into designing a research approach capable of exploring the phenomena in question the researcher was faced with an obstacle that would in the short term result in the postponement of the research plan.

'The best laid schemes o' mice an' men'

On the morning of December 2nd I had a lecture with the cohort during which I planned to introduce the assessment, the research project and to randomly appoint students to groups. After introducing the assignment I made the students aware of my intentions to enhance their learning opportunity by assigning them to groups through randomised selection. At this point the class went into disorder. Students started complaining about the prospect of working with others outside their immediate networks, openly refusing to work with particular colleagues whilst accusing me of putting their education at risk. At this point I decided to abort the research. I knew at this stage I would not be able to get informed consent from the students and without informed consent the study could not be embarked upon. However, the random assignment of group members was to go forward. I believed my intentions were just and that the students would receive a more holistic and worthwhile learning experience if I could create a situation which forced them to break from their common routines in order to reveal their cultural beliefs this would enrich their learning.

As the assessment progressed I started to realise that some of the students were actually participating in a more effective group project and this was having a positive outcome on their overall learning. Furthermore the students within the assessment were demonstrating mastery of subject specific knowledge and acute group work skills, in some cases to higher standards than had previously been perceived as possible from the students. More so the individual reflections produced by the students as part of their reflection demonstrated a deeper level of reflection superior to the usual standard of reflections submitted by third year under graduates. In addition it was evident that for numerous students the morning of December 2nd held particular significance and they were reflecting back upon their emotional responses of the situation and using it to put into context their beliefs and behaviours.

Developing a serendipitous study

Student's reflective papers suggested they had participated in an enriched learning experience. As a researcher I was drawn towards understanding and exploring the causal chain

backwards to understand the most probable cause. Therefore, following the assessment of the work a series of semi-structured interviews were quickly organised with students who had found the experience particularly enriching for various reasons. Informed consent was obtained following a clear written briefing detailing the objectives of the research, the requirements and consequences of participation. This included making the students aware that the interviews would be filmed and the filmed interviews may be used to encourage future students to participate in randomly assigned group projects.

The objective of the study was to allow the researcher the opportunity to explore the students' opinions and outcomes as a result of the critical incidence. Semi structured interviews were chosen largely because as in areas of applied research in which the subject matter is too complex to quantify or the theories are at a stage of insufficient development interviews offer a more flexible and adaptive instrument to study the phenomenon in question than traditional survey designs (Lee, Mitchell and Sablynski 1999).

Results

A number of key findings became apparent as a result of the analysis. Firstly, students expressed significant levels of unease at being requested to leave their 'comfort zones' which resulted in perceptions of enhanced risk. Secondly, within the randomly allocated groups the surfacing of new skills was apparent within students which mediated enhanced self efficacy. Thirdly, a number of students believed they expended greater levels of effort as a result of working with new individuals which directly contributed to individual judgements of enhanced learning. Finally students felt the experience enhanced their reflective capabilities as a result of having a critical incident to focus their reflection upon. These points will now be explored through the in detail:

Learning in the Comfort Zone

The findings indicate that students previously believed that learning was more effective when students were in a comfort zone. This suggests the students perception of effective learning differed to the views of scholars who propose that the most effective learning takes place in conditions that result in a degree of the unknown (Marsick and Watkins 1990; Laird 1980). The student learning comfort zone comprises the degree of control they have over whom they interact and work with, when and where the learning takes place, undertaking what they perceive is to be their 'normal role' within group work and a focus on learning the skills required for successful performance within assessment. Arguably this comfort zone is unrealistic of contemporary working environments. Students demonstrated significant unease when asked to leave the comfort zone they also expressed that this was the first time they had been requested to work outside their immediate peers at levels 5 and 6. 'In my usual group I know what my role is and then I know how to work with people….I just did not like the idea of working with people I did not usually talk to' (Anonymous Female 1 2010).

When students were required to leave their comfort zone this was met with hostility as students believed their usual performance outcomes in regards to assessment were being placed at risk. The students could not understand that even the risk of poor performance could be offset by

participation in an enhanced learning experience that would give them greater opportunity to explore varying factors within their analysis. It is interesting at this stage to consider that the undergraduates who participated in this study believe that assessment and learning are one of the same thing instead of assessment being only an indicator of learning. The focus of students is on assessment and it is worth considering that this may detract from actual learning. 'I did not like the idea because we got to the point where we knew everything we were good at and how we were going to operate…..if it hadn't have worked out it would have affected my overall grade' (Anonymous male 2 2010). 'From that session when there were a lot of arguments…. they felt one mark could change their whole degree classification. So they think they would rather go with who they know' (Anonymous Female 3 2010).

Leaving the comfort zone

The study identified that when students actually left their comfort zone their individual performance was significantly enhanced. This surfaced through the development of new skills, the adoption of preferred roles, the opportunity to step out of the shadows and the need to take greater overall ownership for the task outcomes. There was also evidence that the attributes of effective team work were enhanced such as students demonstrating greater levels of back up behaviour and mutual performance monitoring. 'It helped that because we didn't know everybody no one wanted to drag the team down. Everybody was willing to put that a little bit extra effort in. Whereas if you work with someone you know you are more likely to sit back slightly' (Anonymous Male 4 2010). 'I had to do it as otherwise I wouldn't be pulling my weight in the group work and that would not be fair on others. Whereas when you are more comfortable with others they do not mind if you slack off a bit' (Anonymous Female 5 2010).

Some high performing members of the cohort who usually feel obliged to work within their social group actually got the opportunity to work with other high performing colleagues which resulted in them doing less work but contributing in areas they felt were more personally rewarding

and less frustrating. ‘Martin was the person in the group that I usually am. That was good because I quite like to look at what the work is done and correct as opposed to do all the work which is what I usually do’ (Anonymous Female 6 2010).

Not all the teams performed well. High performing students often found themselves in groups who did not share their work ethic. This caused them frustrations early on in the project. However, the barriers to high performance resulted in them having to work harder and to reconfigure their usual work role to the needs of the new group. The result of this was leadership qualities surfacing in individuals who had not had that opportunity before. ‘I realised I was going to have to make this work’ (Anonymous Female 7 2010). ‘Maybe I did perform better in the groups I was set because it was on me to do it. I could not sit back. I sort of had to take charge’ (Anonymous Male 8 2010). ‘I had to take on more responsibility because they were not prepared to make arrangements to get the work. It is something I had to adopt’ (Anonymous Female 9 2010).

Interestingly students who usually played a less significant role in groups identified that working in randomly allocated groups resulted in them having to adopt a more active role within group work which resulted in them experiencing positive personal outcomes. ‘They expected me to do more work. Not that I do not usually do work it is just I usually sit back…..I felt quite proud of myself….I felt good that I had done my own work instead of relying on other people to help me’ (Anonymous Female 10 2010)

One particularly student who had worked with his high performing friends throughout his education expressed that this opportunity allowed him to play a more active role instead of leaving the majority of the work to his friends. ‘I got the chance to perform better……in this you had to step up and improve yourself’ (Anonymous Male 11 2010)

Enhanced Reflective Capabilities

The experience also allowed the students greater opportunity to produce a better quality of reflection as the removal from their comfort zone resulted in them having the quality of experience required to

trigger reflection (Laird, 1985). As one student remarked, 'I was able to look at things from different angles' (Anonymous Female 12 2010). This enhanced opportunity to reflect is something that can only be created if students are encouraged to break from their commonplace routines and be exposed to new experiences. By creating the need to develop as a team for the delivery of an outcome students were able to contextualise some of the theories of group skills and group development to a standard some had not been capable of undertaking prior to this exercise. Further evidence that effective learning is both cognitive and experience based (Mintzberg 1975).

Areas for Future Consideration

The study has raised a number of key areas and considerations for educators and pedagogic scholars. First and foremost the study supports the argument by Blowers (2003) that random group selection provides a more enhanced learning context for under graduate students. The results suggest that randomised group selection can enhance both task work capabilities and team work capabilities in under graduate students. Thus, the study provides a qualitative argument that directly contradicts the arguments put forward by Bacon et al (2001).

The students who participated in the study concluded in the interviews that they did not understand why random group selection is not utilised more within undergraduate assessment. The author tends to share the same puzzlement. Further research perhaps could investigate the barriers to utilising randomised groups more in assessment strategies and whether these barriers differ across different disciplines. Social psychological perspectives of behaviour propose that humans naturally seek out groups of cultural homogeneity (Tajfel, 1982) which suggests that the situations described in this paper may not be just be isolated in one discipline.

A further issue is the findings suggest that students are being educated within their boundaries of comfort. Theories suggest that learning is more enhanced when the multi facets of intelligence (cognitive, emotional, spiritual) are activated by the learning experience (Laird 1985) to facilitate this

learners must be encouraged and supported to break from commonplace routines in order for the learner to understand the cultural contexts that frame their understandings. Likewise organisations are spending less time in periods of familiarity (Stephenson and Weil 1992). If we are allowing students to stay within their comfort zone arguably we are not providing an adequate learning experience that simulates the environmental conditions of the real world which will prepare them for the situations they will find themselves in when they are entrenched in the working environment. Students in this project despite their initial misgivings expressed gratitude at being given the opportunity to participate in a holistic learning activity. As educators we need to ensure more of these opportunities are provided within our programmes. An area for future research is to understand how students can be challenged but feel their degree classification is not being placed at risk. This may require lecturers to reflect upon their own comfort zones and whether the boundaries should be breached once in a while.

Finally students need to understand the ethos of holistic learning. Students sometimes perceive that the assessment is the process and outcome of learning. This is not the case. Assessment is only a single component of learning. It is an opportunity for the student to demonstrate that they have the potential to consider different behaviours and viewpoints. However, deep learning comes from not an ability to demonstrate but sustained change within the learner. The focus on assessment is leading to a preoccupation with degree classification within Higher Education. This has positive implications as students should aspire to obtain the best possible grades. However, it also has the potential to be a destructive force, capable of driving the wrong behaviours by lecturers and students alike whilst not facilitating an enhanced learning experience. A key area for consideration is whether the focus on a narrow set of performance outcomes restricts educators from delivering holistic learning opportunities?

Implications for educators

I will conclude this paper with a consideration of how randomly allocated group assessments can be implemented more effectively into course delivery and assessment. First and foremost educators need to be fully versed on the true benefits and risks associated with group work and this needs to be articulated effectively to students so that they can understand both the task and teamwork capabilities they need to develop to become effective learners and practitioners. Hopefully this paper will raise a greater awareness in educators of the characteristics of group work.

Assessment should be designed that is capable of requiring both high levels of task and outcome interdependence from students. Arguably one without the other results in a potentially negative learning experience which could result in counterproductive implications on the students learning. Group assessments that do not require high levels of task interdependence in particularly should be considered whether it would be more beneficial to have that assessment as individual based as opposed to group based. If the assessment is not developing teamwork capabilities effectively then it needs to be considered if group based assessment is the most effective assessment strategy. This is drawing from research findings in work design which has proven that putting people in teams when there is no need to work in teams is actually counterproductive to both individual, group and organisation level outcomes (Sprigg, Jackson and Parker 2000). External moderators, course leaders and module leaders need to examine the effectiveness of the group based assessment strategies and consider whether they are capable of developing both task work and team work capabilities. It is proposed that degree programmes which include team based assessment should include assessments that require randomly allocated group membership and assessments which allow self select group membership. This will allow students the opportunity to truly explore their own capabilities within teams and the ways in which they can overcome some of the barriers to high performance associated with team work. Ideally this should be implemented from the start of their under graduate degree programme and continued throughout their studies. Finally, if I am to adopt the same principles and learning strategy in future years as I did in this module in order to overcome some of the conflict I

experienced when allocating the groups I will utilise the findings from this research to assist students in understanding the benefits of randomly allocated groups. In analysing the transcripts of the video recorded interviews a small film was edited together from the interviews. It is proposed this is shown to students next year to help alleviate some of the anxiety associated with leaving their comfort zone. Technological innovations are allowing researchers to disseminate their findings more effectively to multiple beneficiary groups thus increasing the impact of research programmes. This approach could assist future learning and development within higher and further education.

References

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Anonymous male 2. 2010. Interview by Giles McClelland. Video recording.

Anonymous female 3. 2010. Interview by Giles McClelland. Video recording.

Anonymous male 4. 2010. Interview by Giles McClelland. Video recording.

Anonymous female 5. 2010. Interview by Giles McClelland. Video recording.

Anonymous female 6. 2010. Interview by Giles McClelland. Video recording.

Anonymous female 7. 2010. Interview by Giles McClelland. Video recording.

Anonymous male 8. 2010. Interview by Giles McClelland. Video recording.

Anonymous female 9. 2010. Interview by Giles McClelland. Video recording.

Anonymous female 10. 2010. Interview by Giles McClelland. Video recording.

Anonymous male 11. 2010. Interview by Giles McClelland. Video recording.

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