GROUP WORK IN MANAGEMENT EDUCATION – THE ROLE OF TASK DESIGN

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A minithesis submitted in partial fulfilment of the requirements for the degree of Magister Educationis in the Centre for Adult and Continuing Education, University of the Western Cape

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ABSTRACT

GROUP WORK IN MANAGEMENT EDUCATION – THE ROLE OF TASK DESIGN

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This minithesis examines adult learners' experiences of group work in management education. Group work is an integral part of learning and teaching methods at most business schools because it develops team skills demanded by today's workplace. Furthermore, group work in education is grounded in the belief that much learning happens through social interaction and that diversity within groups promotes learning. At a more practical level, group work makes large projects feasible.

Learners view group work as beneficial. But their experiences also reflect that it is often associated with problems. The main problems reported relate to unequal participation and group conflict. Underpinning the study is the recognition of the key role of social interaction in learning. This study analyses learners' group experiences in a business school. The study aims to identify conditions that hinder and promote group interaction with a view to enhance learning.

Through questionnaires and interviews the study obtains an overview of the experiences of 45 adult learners on a one-year management programme at a business school in South Africa in relation to two group assignments. Questionnaires are also used to obtain the views of the two educators who designed the two group assignments. The study includes an analysis of the two group assignment briefs.

The study found that non-participation or 'free-riding' and the sub-division of group tasks occurred frequently. The design of the group tasks promoted sub-division and non-participation, which in turn gave rise to tension and conflict. Learning objectives were unclear as the purpose of group work in the learning process was not

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communicated to students. The tasks did not demand much group interaction or learner interdependency which meant that tasks could be split up and done individually or by part of the group. This reduces the opportunity for group collaboration to clarify understandings and create shared meaning, which in turn negatively impacts on individual learning.

The study argues that successful group work requires careful task design. To realise its full potential certain conditions must be met. Learners need to know that the group process is an integral part of their learning, group work must be integrated into overall course design and assessment, tasks must demand a high degree of interaction, learners need to be interdependent, and groups need support throughout the process.

November 2007

DECLARATION

I declare that *Group work in management education – the role of task design* is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Anna du Toit

November 2007

Signed:

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Chapter 1 – Introduction

1.1 Rationale of the study

Group work is a central component in most management education programmes in business schools. However, the researcher's observations of group work, as well as her interactions with students and lecturers at the institution where the study is conducted, have indicated that group work is not without problems. The main problem highlighted is that of unequal participation, either because one or more group members contribute little or 'ride free' on the efforts of the rest of the group, or because group members divide up the work between themselves which results in not all group members being involved in all the work. Whichever scenario, the outcome is that some learners do not participate in, and therefore do not benefit from, the learning process. This has negative implications for all learners. Although this problem has been discussed informally at the institution in question, it has not been explored systematically. An awareness of the powerful impact that group work can have on student learning and development motivated the researcher to conduct a study into group work at the employing institution.

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1.2 Theoretical context

The use of group work in education is grounded in the belief that much learning happens through social interaction. Doolittle (1999, p. 4) quotes Bakhtin who states that "truth is not to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction" (underlining in original). Group learning allows learners to share experiences, knowledge, views and skills. By verbalising what is being learned through explanation and debate, learners are involved in an active process of meaning-making which leads to deep and lasting learning as discussed by learning theorists like Marton et al (2005) and Biggs (1999).

However, group work does not only promote cognitive development. It also plays an important role in the development of personal and social skills. The use of group work in education is grounded in the belief that interpersonal, intrapersonal, team,

leadership and managerial skills can best be acquired and enhanced through practical experience by exposing team members to the experience and challenges of working in teams in a relatively safe environment. Group work in management education sets out to enhance leadership skills by developing and strengthening team members' abilities to reflect, respect, communicate, and resolve conflict. These are skills regarded as essential in the modern workplace where much work happens through consultative and team approaches. As Chapman et al (2006, p. 557) explain "many employers rank 'ability to work with a group' as one of the most important attributes of business school graduates to possess".

1.3 Institutional context

This study was conducted at the Graduate School of Business (GSB) of the University of Cape Town. The GSB provides management education to working adults. The school has three main departments – one offering short courses, one offering company-tailored academic programmes, and one offering open academic programmes. This study was located in the department offering open academic programmes. Within this open academic department, management education is provided at three levels: at an undergraduate level through the Associate in Management (AIM) programme, at a postgraduate level through the Postgraduate Diploma in Management Practice (PGDMP), and at a master's level through the Master in Business Administration (MBA). This study was based on the 2007 AIM programme. This is a one year programme, consisting of three two-week full-time blocks during which students are on campus. In between these blocks students study privately and in groups, and submit assignments. The blocks are called modules, and the periods between blocks are called inter-modular periods.

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Students are in full-time employment while they undertake the AIM programme. In 2007 45 students were enrolled on this programme. The average age of students is 34 and they have an average of 11 years work experience. Many have no prior experience of studying in a tertiary environment. The curriculum comprises 11 courses. About 40% of all assessed work on the programme is based on group work, although students have to obtain a pass mark of 50% in their individual work before the group mark is allocated. Students are placed in diverse groups of 5 or 6 students

for the duration of the programme. In addition to the formal group projects that need to be completed, group members are also encouraged to support each other in their individual study. The diversity of the groups allows individual learners to benefit from the different strengths, skills, experiences and knowledge that each member contributes to the group. An added challenge of group work on a modular programme is that students do not all stay near the campus. Each group has at least one or two members who live and work in other parts of the country or region. Communication during the three 2-week on-campus modules is face-to-face, but during the inter-modular off-campus periods students need to communicate with each other and the school via phone, email and the school's intranet and electronic learning platform.

Group work at the GSB is a formalised part of the learning approach and curriculum across all programmes. Applicants are made aware that participation in group work is a requirement. In the written application and during the interview applicants are asked to consider their willingness to engage in intensive group work. Students are encouraged to work together in groups to assist each other in their learning. Most courses require groups to discuss learning content prior to lectures, and include a formal group assignment which contributes to the overall course assessment for each individual student. Assessment of the group work focusses on the outcome or deliverable – often a written hand-in or class presentation – whereby each group member receives the group mark. Lecturers generally are not involved during the actual group work process and only assess the outcome or deliverable which is submitted or presented by the group on completion.

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Students are provided at the start of the AIM programme with two sessions on group learning theory. These sessions are intended to make students aware of group processes and to provide them with some tools for successful group work. If groups experience problems affecting their functioning and/or learning during the programme, they can approach the programme director or learning support coordinator for advice or for external facilitation.

1.4 Academic aim

The academic aim of this study is two-fold: firstly to examine the group learning literature, in particular the literature relating to group learning in management education, and secondly to explore the experiences of learners engaged in group work. The main objective of this study and exploration is to ascertain which conditions hinder or promote learning in groups.

1.5 Strategic aim

The strategic aim of this study is directly related to the above academic aim. The main aim is to better understand the challenges related to group learning. The main objective is to make recommendations regarding the design of group learning and the design of group tasks to resolve some of the challenges of group work, thereby promoting the cognitive and personal development of the learners at the institution where the research is conducted. Indirectly, the findings of this study may also be of interest and use to educators elsewhere.

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1.6 Research approach

This is an empirical and qualitative study. A study was made of the literature relating to group learning and group learning in management education. Through questionnaires and interviews the group work experiences of students have been explored. The study also examined the design of group learning and analysed two group tasks. The researcher opted for a small-scale study which explores the experiences of 45 students on one programme in relation to two group tasks, and the views of the two lecturers who designed these two tasks. The choice for a small-scale study was deliberate – the main reason being that it allowed for a more in-depth exploration of experiences within the timeframe available for this study. The research questions necessitated such an in-depth approach, as the focus was not to establish factual information about whether learners like or do not like group work, nor about whether learners find that group work assists them in their learning or not. The main questions the research seeks to answer is how individual students experience group

work and what factors influence the relationship between group work and individual learning.

1.7 Outline of the paper

Following on from this introductory chapter, chapter 2 discusses the group learning literature with an emphasis on group learning in management education. Chapter 3 provides a detailed overview of the research methodology that was adopted and the research instruments that were used in order to collect the information. Chapter 4 discusses and analyses the main findings, while the final chapter contains conclusions and recommendations. The appendices provide illustrations of the research instruments that were used and the two group assignments that were analysed.

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Chapter 2 – Literature review

2.1 Introduction

The review of the cooperative learning literature is structured around six themes. The first theme aims to provide a theoretical frame of learning underpinning the use of group work as a learning and teaching strategy in education in general. The second theme focusses on the rationale for the use of group work in management education. Vital in a discussion about group work in management education are the group work experiences and views of learners and educators as discussed in studies about group work – these make up the third and fourth theme respectively. The review then examines suggestions put forward in the literature regarding ways to overcome some of the challenges associated with group work. The last theme focusses on the influence of task design on group work and suggests that good design can contribute to addressing a number of group work challenges.

2.2 Theory underpinning cooperative learning

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The introduction of cooperative learning approaches in education has its roots in the social constructivist understanding of the process of human cognitive development. The main tenet which constructivism has contributed to learning theory is that human knowledge is a product of human interaction. While interacting, people share individual understandings and create shared meaning, which in turn is internalised as new individual understanding. Psychologists like Vygotsky (1978) have shown that cognitive development and the acquisition of skills are a product of humans interacting with each other and their environment. Meaning is negotiated during interaction and individual understanding results from this interaction. As Bruner (1996, p. 57) states, “knowledge is what is shared within discourse” and human knowledge is “the product of evidence, argument and construction, rather than of authority”. The use of interactive and cooperative learning approaches in education therefore is a logical translation of learning theory into teaching practice. The development of understanding requires that learners are actively involved with others in the process of meaning-making (Gail Jones et al, 2002).

Influenced by the constructivist, in particular the social constructivist, understanding of human cognitive development, educators started using cooperative learning approaches as a way to promote the acquisition of knowledge and skills among their learners. In their analysis of cooperative learning studies Johnson and Johnson (1989) conclude that cooperative learning increases student achievement in comparison to individual learning. Such conclusions are supported by developmental and constructivist theories of learning. Constructivist theorists of learning, for example Glaserfeld (1989), put forward that individual learners construct knowledge through interaction with their environment and with others. Slavin refers to Vygotsky's theory of the zone of proximal development by stating that "interaction among children around appropriate tasks increases their mastery of critical concepts or skills" (Slavin, 1987, p. 1162). Learners engaged in cooperative learning activities question, explain, discuss, critique and negotiate meaning. Through social interaction and sharing, each individual learner is exposed to the knowledge and skills of others – peers, more capable peers, as well as adults – which enriches, and also reinforces, the individual construction of meaning and knowledge, thus promoting cognitive development.

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Apart from promoting cognitive development it is argued that cooperative learning leads to a higher retention of the knowledge and skills acquired, precisely because the process of the acquisition of knowledge is an active one. The higher retention and deeper learning are achieved for a number of reasons. Firstly, the cooperative learning process generally leads to higher levels of motivation – learning is experienced as enjoyable, social and fun. Secondly, in cooperative learning the learning matter is constantly being verbalised and this verbalisation clarifies, deepens and reinforces understanding. Thirdly, by sharing and verbalising learners are testing their own ideas in the larger social context which the group provides. This process of testing helps learners assess the validity and viability of their ideas, which also stimulates deeper learning resulting in higher retention. The active participation and engagement required of learners in cooperative learning activities therefore lead to higher levels of understanding and stimulate 'deep' as opposed to 'surface' learning (Biggs, 1999). These and other researchers have shown that learners who are provided the opportunity to critically examine and discuss new knowledge retain this knowledge better than learners who are expected to individually and passively receive new knowledge. Anderson et al (1996, p. 3) explain that "we … often learn best when we

are forced to explain things to others". They add that "the learner is involved in shaping both the learning environment and the content of the learning" and that "this in turn contributes greatly to learner interest and motivation" (Anderson et al, 1996, p.3). Learner interest and motivation are factors which influence whether deep or surface learning takes place. The active involvement and interdependence of learners through cooperative learning can play a major role in increasing learner motivation, and thus the quality of the learning. Group work therefore provides the ideal site for cooperative learning.

Cooperative learning is defined in the literature as a teaching strategy that encourages students to work in "small, heterogeneous learning groups" in order to promote individual learning (Slavin, 1983, p. 431). The fact that learning groups should be heterogeneous or diverse is important to ensure that learners can learn from each other, and provide stimulation and support to each other in different aspects and at different levels of the curriculum. Much research has been conducted regarding the effectiveness of such cooperative learning approaches. The dominant view emerging from the existing research into group work in education is well captured by Johnson et al (1991, p. 3) who argue that by working together students "learn more, have more fun, and develop many other skills, such as learning how to work with one another". As discussed above, to these benefits – better mastery of content knowledge and the acquisition of social skills – another benefit should be added, namely better retention of knowledge: "the more one works in cooperative learning groups … the easier it is to remember what [one] learns" (Johnson et al, 1991, p. 3). These main benefits are identified in the literature regardless of the subject matter or the age of the learner.

Although negative outcomes and challenges associated with group work have been raised in the literature, these appear to result from poorly designed group work, rather than being inherent to group learning itself (Bacon, 2005). Difficulties experienced with group work have led education researchers to examine what conditions need to be present in order for group work to stimulate interaction and promote learning. It was established that group learning approaches need to meet a number of criteria in order to be truly cooperative. Necessary conditions and criteria have been drawn up by different educational researchers in order to arrive at a clearer definition of what true cooperative learning is. Johnson et al (1994) put forward five main conditions

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that are necessary for cooperative learning, namely (1) interdependence (students need each other in order to succeed), (2) interaction (students need to interact in order to achieve), (3) individual and group accountability, (4) development of team skills, and (5) feedback and evaluation.

The above has highlighted the vital importance of cooperative learning for the cognitive development of learners. But students benefit from group work in other ways too, as group learning also enhances the development of social skills. Slavin (1990) mentions skills such as communication, critical enquiry, reflection, and teamwork. These are important skills, not only in life and learning, but also in the world of work.

2.3 Group work and management education

The same benefits – cognitive and social – of cooperative learning in the education of children and youth are also observed in management education. In management education the learners are mostly adults with considerable life and work experience. The benefits of cooperative learning in management education as discussed in the literature are very similar to those put forward in relation to education in general. For example, Bacon (2005, p. 248) states that "business schools often assign student group projects to enhance student learning of course content and to build teamwork skills".

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2.3.1 Group work to enhance learning

As discussed above social constructivism has established the crucial role of interaction in the learning process. This not only applies to informal learning throughout our lives as we become 'apprenticed' into different societies, cultures and communities. It applies equally to formal learning in educational contexts, regardless of the age of the learner. Researchers (e.g. Akan, 2005; Anderson et al, 1996; Kalliath et al, 2006) put forward that cooperative learning enables individuals to develop their own understanding because cooperative learning approaches force learners to actively relate their own experiences and perspectives to those of others. While interacting in cooperative learning activities individual understandings are verbalised and

negotiated, and in the process of negotiation new meanings are created as learners help each other to better understand the learning matter. Haller et al (2000) refer to this type of learning as the 'collaborative sequence'. Learners are collaborating as equals in the creation of meaning. Because the learning process is collaborative, learning becomes an active process in which knowledge is created, rather than a passive one in which knowledge is received. Active involvement in the learning process leads to higher levels of learner satisfaction and motivation, which in turn leads to deeper learning and higher levels of retention of what is being learned.

The opportunity for shared learning among adult learners is greater than among young learners, as adult learners draw from a much larger store of experience and knowledge. Knowles et al (1998, p. 66) argue that "any group of adults will be more heterogeneous … than a group of youths" and therefore "the richest resources for learning reside in the adult learners themselves". Anderson et al (1996) state that group learning is becoming more important, because institutions of higher learning consist of increasing numbers of mature learners who bring life and work experience into the classrooms. These mature learners return to formal education because rapid social, economic and technological changes require them to be lifelong learners with transferable skills.

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Adult learners across all levels of management education, in particular in the South African context, represent a high degree of diversity, not only in terms of their educational, social, cultural and geographical backgrounds, but also in terms of their professions and the industries in which they are employed. Engineers, accountants, human resource practitioners, IT specialists, marketing managers, administrators etc. bring a diverse range of knowledge, skills and experiences to the classroom. Collaborative learning makes it possible for individual learners to benefit from this diversity by sharing and transferring individual knowledge and skills to other learners. Haller et al (2000, p. 285) refer to this type of collaborative learning as the 'transfer-of-knowledge sequence'. In this sequence learners act as teachers or tutors to each other.

Collaborative learning, drawing on this wide range of knowledge and skills, makes it possible for larger and more complex tasks to be achieved in the form of group

assignments, thus taking learning to a higher level, than could have been achieved in individual tasks. Bacon (2005, p. 248) refers to a survey by Herman and others in which business school deans rated improved learning "as the most important reason for using teams, followed by the practical experience that students gain from working in teams".

2.3.2 Group work to enhance team skills

What happens in today's workplace has influenced the design of management education. The modern workplace requires employees to possess good team and cooperative skills (Akan, 2005). Chapman et al (2006, p. 557) comment that "in today's world, the ability to work efficiently and effectively with others … is a mandatory skill" which is ranked by many employers "as one of the most important attributes for business school graduates to possess". Under pressure from the demands of business and industry many institutions of higher education, including management education, have adopted cooperative approaches as part of their teaching and learning strategies. Organisations need employees who are team players with good intrapersonal and interpersonal skills. Successful managers need insight into how teams function, how to motivate teams, and how to improve team effectiveness and efficiency. McGraw et al (2001, p. 162) explain that "underpinning the widespread use of group projects in academic programmes has been the acceptance of experiential learning methodologies". The underlying rationale is that the experience of being part of a group facilitates not only the acquisition of team skills, but also gives the student experience of and insight into how teams function.

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Business schools are expected to equip managers with the skills needed to successfully lead teams in organisations that are faced with rapid change as a result of modernisation and globalisation. Collaborative learning situations are created in management education that aim to simulate the diversity represented in the modern workplace and equip managers with the skills they need to motivate teams and develop individual employees in order for the organisation as a whole to be successful. The management and transfer of knowledge within organisations in today's competitive world are vital. Cooperative learning skills which students acquire in education can be transferred to the workplace in order to promote learning,

knowledge management and knowledge transfer in the workplace. Learning in the workplace can be enhanced through collective approaches. Wenger (1998, p. 6) refers to learning as a social process which happens in 'communities of practice' where members engage in joint activities. The collaborative learning methods used in business schools equip students with the skills they need to be able to function well in such communities of practice in their current and future workplaces.

2.3.3 Emphasis on team skills

This basic literature survey of cooperative learning in management education, which could be carried out within the scope of this study, finds that from the two main purposes of cooperative learning, namely enhancing learning on the one hand and enhancing team skills on the other hand, the latter receives most emphasis and attention. Perhaps one explanation for this is that business schools have close links with the world of work and the demands from employers. The answer may well lie in clarifying how the two purposes – team skill development and cognitive development – are connected. Seeing the two as connected will have implications for the design of group work in education – in particular in relation to the product versus process debate which refers to the question whether educators should only be concerned with the product of group work, or with both process and product.

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Having examined the educational reasons for the use of group work in education, it is important to review these in the light of the experiences of the key stakeholders – learners and educators – as discussed in the cooperative learning literature. The focus in this review will be the experiences of learners and educators in management education.

2.4 Learner experiences of group work

Cooperative learning approaches are often new to learners entering higher and management education, especially to adult learners returning to study after some time. Akan (2005, p. 214) explains that today's adult learners often come from schools where "students work by themselves [and] are rewarded for their own performance".

The ability to work in a group is not only important for management students in terms of their careers, but also for their success as learners.

Walker (2001) suggests that little research has been published to date reporting on student perceptions of group work. Although the focus of her study is on student perceptions of group work linked to peer assessment, her findings suggest that "students in general had a positive attitude towards group work" (Walker, 2001, p. 33). The fact that most learners are generally positive about group work is echoed by other researchers. Chapman et al (2006) found that "the overall attitude was generally positive [and] degree of conflict was moderate". They refer to an earlier study conducted across 32 institutions which "found that students' overall attitude toward their group experience was relatively positive (5.22 on a 7-point scale)" (Chapman et al, 2006, p. 567). What are these positive experiences based on?

One reason why students enjoy group learning is the fact that it adds welcome variety to the style in which learning takes place. Learning in groups is experienced as fun and more active. Colbeck et al (2000, p. 60) report that "many students, particularly the growing population of returning adults, appreciate interactive learning experiences". Learners have also commented on other benefits. A study by Yazici (2004, p. 114) called 'Student Perceptions of Collaborative Learning in Operations Management Classes' showed "that the students agreed that they had a better understanding of Operations Management in a collaborative instruction environment". Likewise, Dommeyer (1986) in a study comparing individual and team approaches in a marketing research course found that students rated the team project not only as more enjoyable, but also more educational than an individual format. These student experiences of collaborative learning are a good illustration of the theories of social constructivism and experiential learning which were discussed earlier.

Learners in a study by De Vita (2001, p. 28) found group work to be challenging, but at the same time felt that they learned a lot about themselves and felt better prepared to work in diverse teams in the future. Apart from experiencing diversity and learning how to engage with diversity, students also experience how much they can contribute to each other's learning. The learner dependence that is created in traditional teaching approaches makes way for a more independent and confident learner who is able to

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communicate well with others. Harland (2003, p. 269) writes that "as tutors stepped back students took on the roles of the more capable peer". Student responses to this new role are not only positive, but also show that group learning approaches lead to learning benefits that would otherwise not have been achieved. Students in the Harland (2003, p. 270) study exposed to peer learning were aware that they acquired content knowledge in a different manner – "you learn and teach without noticing" – and, were also aware that they were acquiring other knowledge and skills – knowledge about themselves, how to deal with people, and how to solve problems. And even if conflict arises, students can approach conflict as an opportunity for learning conflict-handling skills which will assist them in their current and future careers. The experience of group work not only teaches students how to handle conflict when it arises, but also encourages attitudes (e.g. being open-minded) and skills (e.g. listening, observing, reflecting) that can prevent conflict from happening in the first place. Colbeck et al (2000, p. 76) found that students exposed to group learning approaches in education learn to appreciate the value of the skills they are acquiring for their future careers, in particular the ability to listen to other perspectives with an open mind, to suspend judgement, and to seek solutions in a democratic and inclusive manner.

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The above discussion of how learners experience group work is not complete without an examination of the problems and concerns which also arise. Student concerns discussed in the literature are mostly linked to group process and assessment. Fellenz (2006, p. 575) reports that "a recurrent complaint of students is the concern about free riding, and related concerns about intragroup conflict". He explains that students are "particularly concerned about group work because of mistrust in the other group members' commitment to joint tasks, and about the fairness of assessment that does not account for differential individual inputs". That this concern is widespread is evident from the group work literature as well as from the researcher's own knowledge and involvement in management education.

It is argued that problems related to 'free riding' or 'social loafing' do not stem from group learning itself, but are caused by poor task design and/or inappropriate assessment methods. Michaelsen et al put forward in their study that:

> … the vast majority of student or workshop participants' dysfunctional behaviours (e.g. social loafing, one or two members dominating the discussion) and complaints (e.g. having to carry the dead wood, the instructor isn't teaching) are the result of bad assignments, not bad learners (underlining in original) (Michaelsen et al, 1997, p. 16).

This will be discussed more fully below. Concerns around group process and functioning also feature in the literature and in the researcher's experience of working with groups. Lack of structure, tools and time often result in the group functioning getting out of hand because problems are not addressed. Students are not sure how to address problems around intragroup communication (e.g. dominant members or silent members) and because of time constraints (e.g. assignments due dates) focus on the task that needs to be completed. De Vita (2001, p. 31) found that students in his study felt that group tension was often caused by time pressures – on the one hand groups had to move fast to get tasks done on time, on the other hand group members felt they needed more time to get to know one another. Although group preparation or team building cannot be seen as a separate stage preceding group work itself, it is clear that time pressures can affect a group's ability to resolve issues – especially in the case of busy adult part-time learners who have to juggle family, work, study and social commitments.

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But apart from time, it frequently is also a question of knowing what to do and how. That students often lack the tools to remedy poor group functioning and an imbalance in individual contribution is evident from the Colbeck et al (2000, p. 72) study in which students who tend to take over and dominate explain their behaviour by saying that other group members don't care and that they step in themselves because they don't want their own work and grades to suffer.

It is at this point interesting to note that the types of student experiences about group work, both good and bad, that appear in the literature about cooperative learning are very similar to the findings from this present study which will be discussed later in this paper. Having examined some of the main student experiences, the following section will look at the educator experiences and views relating to group work in higher and management education.

2.5 Educator experiences of group work

Akan (2005, p. 214) notes that "teaching strategies in today's business schools emphasise simulating real-world challenges" and that as a result groups working "on interdependent tasks are fast becoming a business school norm". In the section above the student experiences of group work have been examined. What are the experiences of educators who use cooperative learning methods?

The literature reflects general consensus among educators and researchers regarding the potential benefits of team learning: more complex projects become possible, learning is deeper and more long-term, and students acquire team skills. As a result the use of team learning in management education has increased in recent years (Kalliath et al, 2006). Other, more pragmatic reasons have also been put forward for the increased use of group work by educators in an attempt to cope with growing marking loads due to rising student numbers and class sizes (Bacon, 2005; De Vita, 2001; Fellenz, 2006; Young et al, 2000).

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In addition to general agreement on the potential benefits of team learning – with a few exceptions (e.g. Bacon, 2005) – the literature also reflects that educators experience common concerns and challenges regarding the implementation and use of group learning approaches. An extensive literature exists about the problems which educators experience when using team work in their courses. The main problems reported in the literature relate to how to deal with 'free-riders', how to assess accurately and fairly, and, staying with assessment, what to assess – product, process or both, how to deal with group dynamics and conflict, how to ensure that individual group members are exposed to all aspects of a group learning task, how to guide teams, as well as the difficulty of finding time to guide teams.

Before looking at these concerns, it is important to establish what educators understand group learning to mean as the literature suggests that some confusion exists about this. According to Hansen (2006, p.15) "it appears that the majority of faculty who place students into teams do nothing more than that". This reality is echoed by others. Johnson et al (1991, pp. 1-2) argue that "many educators who believe that they are using cooperative learning are, in fact, missing its essence". They

explain this by saying that “a crucial difference exists between simply putting students in groups to learn and in structuring cooperation among students”. Siciliano (2001, p. 9) explains that “most of the team activities exclusively emphasise the task, demand no interdependence among team members, and include no way to assess individual performance”. Considering this reality, an important question to consider is whether the difficulties educators experience with team learning are perhaps not caused by inappropriate application, rather than the method itself. A number of researchers have suggested the lack of training of educators in appropriate use of group learning methods as a related factor. These issues will be discussed more fully in the next section.

In the cooperative learning literature assessment seems to be a main concern of educators. Many issues seem unclear. Firstly, what is assessed – the end-product of the task, the group process, or a combination of the two? If the process forms part of the assessment, who assesses – the lecturer, the group members, or a combination of the two? Also, who is assessed – the collective, the individual group member, or a combination of the two? After a consideration of these and other issues relating to assessment De Vita (2001, p. 33) concludes that group work is “far from being a ‘quick-and-easy’ assessment tool” and that “unless much time, effort, reason and judgement go into the design … of group tasks, the probability of a successful outcome is bound to be low”. Fellenz speaks about his own experience as an educator:

> I have long struggled with the challenge to find ways to maximise student learning from group projects while providing fair and accurate assessment methods and countering the potential negative impact of free riding and internal conflict (Fellenz, 2006, p. 571).

Another aspect of cooperative learning about which different opinions among educators exist is the actual role of the educator in group work. Is it enough to assign groups, allocate tasks, and then let the students get on with it or should the educator do more? As is clear from a study by Young et al (2000, p. 60) many faculty do not regard it as their responsibility to evaluate group process, and certainly not to teach group skills. Colbeck et al suggest that negative reactions from students to group work

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should be treated with caution as these may well be in response to poorly managed group learning approaches, rather than to group work itself. They comment that:

> … conditions for group learning in higher education settings rarely meet the standards advocated by cooperative learning scholars [and] few faculty have either extensive experience working in groups themselves or formal training about how to manage groups (Colbeck et al, 2000, p. 61).

Some faculty feel ill-equipped to teach group skills, but there are also faculty who hold the opinion that they do not have time to teach groups skills and that it is not their responsibility. Reisenwitz and Eastman (2006, p. 9) for example comment that "marketing faculty typically do not have the time in their course to both teach the students the marketing content as well as how to function effectively in a team". Yet, their paper addresses creative solutions to this problem which will be discussed in the following section. Educators McGraw and Tidwell also emphasise that:

> … the potential for positive outcomes from group work needs to be stimulated [and that] business schools must be seen to be properly discharging their duty of care towards students by equipping them with the necessary tools to deal successfully with project group work (McGraw and Tidwell, 2001, p.162).

This leads into the next section which examines the literature in terms of the solutions suggested for the difficulties experienced by learners and educators when faced with group work.

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2.6 Meeting group work challenges

The earlier two sections examined the learner and educator experiences of group work in higher education and management education. This examination has illustrated that widespread agreement exists about the benefits, realised and potential, of group learning. Yet, the literature has also shown that not all group work enhances learning and the development of team skills, nor that all group work is experienced as positive under all circumstances. Much research (e.g. Hansen, 2006) reports on the difficulties and problems associated with group work in education – ranging from group conflict, free-riding, loss of individual learning through specialisation, to perceived unfairness in assessment. Research has been conducted into what causes these problems and how to resolve them. Below follows a discussion of the main suggestions that have been advanced to meet the challenges thus ensuring that the potential gains can be realised.

Firstly, the status of group learning in itself is important. Anderson and Boud (1996) argue in favour of formalising and managing group learning within the curriculum. They explain that informal or casual approaches result in loss of recognition in the eyes of learners. Formalised group activities, which are subject to evaluation and assessment, will impress upon students the importance of group work in their learning and the weight which group work is given in the overall curriculum.

The literature also suggests that students need to be better prepared and receive more guidance for cooperative learning to be successful. Hansen (2006, p. 12) believes that in many instances students receive little or no guidance at all and that "this fundamental disconnect between the use of teams and teamwork preparation is a significant problem". Chapman et al (2006, p. 558) echo this and put forward that "instructors should make every effort to structure, implement, and control group projects in an extremely intentional and well-thought-out manner". The literature reflects different ideas about how this is to be done. Some education researchers (e.g. McGraw and Tidwell, 2001; McKendall, 2000) argue for a separate course to be part of the degree or programme curriculum which teaches group process skills to students. Such a course could include group learning theory, case studies, as well as workshops. The above researchers propose this be done in the form of an introductory course. Others believe in a more integrated approach. The underlying rationale of an integrated approach is that if the interaction of students while working on cooperative tasks is key to the development of cognition and social skills (Vygotsky, 1978; Slavin, 1987; Yazici, 2004), it then follows that it becomes every educator's responsibility to plan, structure, guide, evaluate and assess group learning activities in the context of his or her own course or discipline.

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Hwang et al (2005, p. 151) illustrate that even in a subject area like accounting "educators have called for educational reforms for over a decade" and that "one of the major objectives of these reforms is to move away from an individual-based and passive learning approach toward a team-based and active learning style". The results of their study, which was carried out in the context of an accounting course, suggest that cooperative learning approaches in accounting improve the ability of students to apply the knowledge learned and improve the ability of students to deal with "harder or less straightforward accounting problems". Such findings support the notion of an

integrated, rather than separate, approach and therefore underline the responsibility of every faculty member teaching students to design and incorporate effective group learning methods in their courses.

How is this integration achieved? Bacon (2005) argues that before designing learning activities, like group work, one should first establish the purpose or learning objective. Only when the objectives are clear, can one design learning activities that are appropriate. In other words, there should be congruence between purpose and method. This links in with the concept of constructive alignment (Biggs, 1999). Rust et al (2005, p. 232) explain that "everything in the curriculum – the learning outcomes, the learning and teaching methods, and the assessment methods – should follow on one from another and be seamlessly, demonstrably interrelated". For example, if effective group participation and the development of team skills are part of the learning objectives of a particular task, it would be against the principle of constructive alignment, amongst others, to purely assess a written group assignment which results from this task. The message students will receive from this is that the lecturer who set the group task is only interested in and only attaches importance to the end-product. This devalues the group process in the eyes of the students and negatively impacts on the functioning and coherence of the group. The fact that the lecturer only looks at the end-product also means that the groups will receive no support, guidance or feedback while working on the task. This example illustrates the importance raised earlier that group activities and tasks must be planned "in an extremely intentional and well-thought-out manner" (Chapman et al, 2006, p. 558). The principle of constructive alignment therefore has important implications for task design and assessment.

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It is clear from the experiences of learners and educators, as reported in the group learning literature discussed above, that assessment in group work is a contentious issue and often leads to negative experiences and associations with group learning on the part of learners as well as educators. How can this challenge be met? Firstly, as Boud et al (1999, p. 419) explain, "assessment needs to focus on the central outcomes". The main objective of the task should determine what is assessed and how. The assessment of group work is more complex than assessing individual learning and performance. Apart from ensuring that the assessment is aligned with the

learning objectives, faculty need to determine what to assess: the group, the individual, a combination of the two. Assessing the group can also be done in different ways: either the group mark is awarded for the group's performance as a collective, or the sum of the individual group members' marks become the group mark. An additional aspect to consider is the use of peer assessment as part of the overall assessment, and if using peer assessment whether it should assess process, product or both.

The literature (e.g. Walker, 2001) shows that although students are generally quite positive about group work as a learning approach, they have many concerns about peer assessment. Research has shown that if ill-conceived and ill-prepared peer assessment can lead to much unhappiness and actually negate positive group learning experiences. Some of the findings from the study by Walker (2001, p. 34) clearly illustrate such negative experiences: "you put us together and expect us to form friendships and then when we do and we're all getting along great, you expect us to judge each other". Therefore, as Boud et al (1999), argue peer assessment can only work if part of the agreed, ongoing and formative feedback that students give one another in their learning. Within the course itself, one also needs to consider what weighting to give the group mark. Davis (1993, p. 5) advises that "if you assign the same grade to the entire group, the grade should not account for more than a small part of a student's grade in the class".

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In the business school where the researcher is employed many faculty award a weighting of 40% to group work to indicate the relative importance of team learning within the management education curriculum, while at the same time using the rule that the group mark is only allocated to students who obtain a pass mark in their individual work within a particular course. Another consideration is how assessment can be tailored in such a way to ensure that all students participate and cannot ride free on the effort and work of others. These questions need careful consideration when planning group learning using the principle of constructive alignment.

Once the planning is done, it is important that the assessment criteria are clearly communicated to the learners so that the assessment process is transparent from the outset and that it stimulates the required learning to take place. Alignment between

learning objectives and assessment, plus clear assessment criteria are key for successful group work. Gibbs (1995) argues that the assessment criteria and assessment methods of group work should be made explicit so that it is clear both what aspects of the group task are important and what the groups are expected to do. Finally, important in evaluation and assessment both in individual and group learning approaches is the need for formative feedback. Young et al (2000, p. 59) explain that "learning is most influenced by formative evaluation that provides feedback during the course". This applies as much in the context of group learning and faculty should create opportunities for regular feedback to groups to enhance content learning as well as the team skills which influence group functioning and ultimately individual learning. Reisenwitz and Eastman (2006) provide useful suggestions for how faculty can provide regular formative feedback to groups.

Studies into cooperative learning (Slavin, 1988; Johnson et al, 1991; Johnson et al, 1994; Michaelsen et al, 1997; Siciliano, 2001) have lead to the development of sets of conditions that need to be in place for cooperative learning to be successful. As summarised by Johnson et al:

> A group must have clear positive interdependence, members must promote each other's learning and success face to face, hold each other personally and individually accountable to do his or her fair share of the work, use appropriately the interpersonal and small-group skills needed for cooperative efforts to be successful, and process as a group how effectively members are working together (Johnson et al, 1991, p. 2).

In the context of group work in higher and management education it is clear what these conditions mean and how they will contribute to successful group learning. Positive interdependence can be created by ensuring that to be able to carry out the task students depend on each other's participation and contribution to achieve the required outcome. Group members support each other's learning if the nature of the task requires them to engage in discussion in order to clarify issues or solve problems. Individual accountability can be achieved through evaluation and assessment of each group member's contribution and performance. Team skills need to be taught and discussed so that the group and the individual members gain clarity about the behaviours that are and are not helpful to the group process and performance. Finally,

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the group needs to set aside time to evaluate how the group is functioning and discuss possible improvements. It can be useful for groups to document such evaluative discussions in forms, charters or contracts. The added advantage of this for the lecturer is that this information provides some evidence of and insight into how the group is doing. Careful planning and designing of cooperative learning and group tasks can ensure that the important conditions discussed above are in place.

2.6.1 Designing group tasks

The above discussion about how the challenges of group work can be met have important implications for task design. Also discussed in the group learning literature is the question of group formation and the methods used to assign students to groups (e.g. De Vita, 2001; Chapman et al, 2006) – the main methods being self-selection by students, or random or criteria-based selection by faculty. Advantages and disadvantages of different methods are discussed. The scope of this particular study does not allow for a detailed discussion of this issue, suffice to say that in management education the preferred method is criteria-based selection by faculty to create a learning environment that is as rich and diverse as possible. This is also the case in the business school where this study is conducted. Linked to the question of group formation method is the issue of ideal group size. Again, there is no scope within this study to discuss this in detail. The literature (e.g. Davis, 1993, Johnson and Johnson, 1994) tends towards general agreement that groups of five or six students are best – large enough to be a rich learning environment, but not too large to make it easy for students to hide or be passive.

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Apart from creating the right conditions to support group learning, group tasks need to be designed in such a way as to stimulate individual participation and lively group interaction. Task design is a crucial factor in group learning. Group tasks must meet the conditions necessary for successful group learning as discussed above. A poorly conceived task can be detrimental to a good group. Individual contribution and group discussion are essential ingredients. Young and Henquinet (2000, p. 56) define a group project “as an assignment that requires two or more individuals, interacting and interdependent, to come together to achieve specific objectives”. This definition is

aligned to the main conditions for cooperative learning as defined by Slavin (1988) namely positive interdependence and individual accountability.

In the context of management education, Bacon (2005, p. 250) writes that "in many peer-learning environments, not only does the group produce a group product, such as a paper, but in addition the learning of each individual is measured later by an exam or a written assignment". Yet, he questions the existence of individual accountability. "Each member of the group then often receives the same reward, typically the same grade. Thus, a group goal exists, however often there is little if any formal individual accountability" (Bacon, 2005, pp. 252-253). A number of researchers have suggested ways in which to ensure individual accountability by incorporating certain characteristics into the design of group tasks. Davis (1993, p. 2) put forward that group tasks should be based on interdependence – "each member is responsible to and dependent on all the others" in such a way "that one cannot succeed unless all in the group succeed". In addition she suggests the use of collaborative test taking based on findings "that groups consistently achieve higher scores than individuals and that students enjoy collaborative test taking" (Davis, 1993, p. 3).

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To ensure that group tasks promote interdependence as well as "the use of higher-order cognitive skills" De Vita (2001, p. 28) argues that some assignments are more suited to group learning than others. He agrees with Michaelsen et al (1997) that essay-type assignments are more suitable for individual work as "writing is inherently an individual activity". De Vita (2001, pp. 28-29) provides an excellent illustration of the adaptation of an essay-type group project into a group presentation which requires active cooperation, individual accountability, and high level cognition. The feedback from one of the students involved in this redesigned group project is revealing: "We soon realised that even the best student in the group could not do well in this task by working alone. To answer the question we really had to work together" (De Vita, 2001, p. 29). This is also a clear illustration of how good task design can prevent free riding in a constructive manner. In addition, groups will be motivated to undertake tasks that have clear goals and require a manageable workload (Hansen, 2006, p. 13).

Just to summarise, Michaelsen et al (1997, pp. 3-5) state that good group tasks are tasks that cannot be done by one or two individual group members working on their

own, that require preparation and input from every group member, that require intensive group interaction, and that receive external meaningful performance feedback. Feedback in particular is important as the researcher suspects that current common practice in management education is that feedback on group learning is provided when the group project has been completed (i.e. is summative), only relates to the end-product, not the group process. In the context of feedback, Reisenwitz et al (2006) suggest that faculty could require groups to submit a work plan at the start of the group project and regular written updates which documents the group's functioning and progress. This not only allows faculty to show students that they take an interest in how the group is doing, but also provides an excellent mechanism for providing formative feedback.

The above discussion of the group learning literature has examined the experiences and challenges associated with group work. One undisputed fact is that successful group learning requires careful thought, planning and preparation on the part of faculty.

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2.7 Conclusion

This review of the group learning literature has attempted to cover the main issues in the ongoing debate about cooperative learning. Because of the limited nature and the focus of this study not all issues have been addressed in detail. The findings resulting from this particular study will be discussed against the backdrop of the main issues raised in the literature.

Chapter 3 – Methodology

3.1 Introduction

As discussed more fully in the earlier chapters this study aims to provide an analysis of group work as experienced by adult learners at a business school. This chapter outlines the research design used and the research instruments chosen in order to collect and analyse the required information.

The institution which is the focus of this study is a representative example of a graduate post-experience business school. Post-experience refers to the fact that sufficient and relevant work experience is one of the entrance requirements. The student profile is therefore made up of adult learners. The AIM programme is unique in the school in the sense that it provides undergraduate management education in a graduate business school. The programme was started as a combined initiative of the institution and large corporates in order to address the shortage of a diverse pool of educated managers at the junior and middle management levels in South Africa in the early 1990s. The majority of students on the programme have had limited or no exposure to tertiary education. The AIM programme is a one-year management education programme and therefore well suited to this study in terms of its focus – which is group work in management education – and as well as the time frame available for this study which is less than one year.

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3.2 Qualitative methodology

The research topic and research questions situate this study in social research as it is about an aspect of human society – in this case adult learners engaged in group work in management education. The study is an empirical one and uses a qualitative methodology. The study sets out to collect information of a qualitative rather than quantitative nature, namely how students experience group work and if they find group work useful as a learning tool to assist them in acquiring skills and knowledge. Although a quantitative study about group work in management education across a larger sample would be interesting, this study is directed at exploring student views

and experiences in more depth across a small sample and from a purely qualitative and exploratory point of view.

No hypothesis was constructed at the outset of the study of which the validity needs to be tested. Unlike quantitative research which uses a predominantly deductive approach in which hypotheses are tested through empirical research, "qualitative research … implies an inductive approach in which theory is derived from empirical data" (Spicer, 2004, p. 295). Although a prior hypothesis usually leads the research in a quantitative approach, this does not mean that all qualitative approach is completely exploratory. Spicer also (2004, p. 295) comments that "qualitative methods … are inevitably based on pre-formulated theories or 'hunches' (whether they are made explicit or not)" as is also the case in this particular study and which is discussed in chapter 1. There can be value in combining qualitative and quantitative methods, but for the scope and nature of this study a purely qualitative approach has been adopted.

Inevitably, each choice of research methodology consists of advantages and disadvantages. However, it is a question of selecting the method that is most suitable to answer the research questions. The qualitative nature of this study reduces it to small numbers of research subjects. Yet, the research question in this study is not seeking representivity, nor is it seeking to test hypotheses. The study is of an exploratory nature and the need to 'dig deeper' to understand the research subjects' experiences and views necessarily reduces the size of the study to small numbers. As a result the study does not aim to score high in terms of the reliability or representivity of its findings, yet the study does aim to produce a small amount of in-depth qualitative information which may represent a small contribution to the body of research about the role of group work in learning.

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3.2.1 Case study approach

In some respects the research approach employed in this study resembles that of a case study. The case under investigation is that of group work. Although no fully-fledged case study research method is employed, there are similarities. Yin (2003, p. 13) defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context". This certainly applies to the current study in

that group work represents the contemporary phenomenon and management education represents the real-life context. This has implications for data collection and data analysis in the sense that case studies do not exist in controlled or predetermined environments and can therefore produce many variables.

As discussed by Flyvbjerg (2006), misunderstandings exist about case study research – the most common being that the findings from case study research cannot be generalised. However, this is taking quite a narrow view of this research method and ignores the contribution that case study research has made and is making to social science. Flyvbjerg (2006, p. 220) takes a broader view of the method – on the one hand agreeing that "the case study is a detailed examination of a single example", while on the other hand stating that "it is not true that a case study cannot provide reliable information about the broader class". It is important to recognise the fact that multiple methods are necessary for the advancement of social science – the strength of the case study method lies in its in-depth and contextual nature. Combining multiple methods, as well as combining the findings from multiple case studies will strengthen reliability and validity and advance social science theory.

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This study of student experiences of group work in management in education as 'a detailed examination of a single case' is regarded in this broader context. The purpose is to analyse one single case. The focus is intentionally narrow in order to achieve a significantly deeper understanding of group learning.

3.3 Research process

Prior to launching the study and collecting the data permission was obtained from the school in question via the researcher's direct line manager as well as the school's research director. In addition, students on the AIM programme were informed about the study and asked if they were willing to participate. The research process consisted of two student questionnaires, two lecturer questionnaires, ten student interviews, and an analysis of two group tasks. Each is discussed in detail in the subsections that follow. Illustrations of the research instruments that were used and the group assignments that were analysed are contained in the appendices to this paper.

3.3.1 Questionnaires

To answer the research questions it is necessary to ascertain how students experience and view group work. One of the research instruments chosen for this is the questionnaire. Questionnaires with open-ended questions were designed to collect information about the group work experiences from students. The questionnaires made it possible to target a larger number of subjects, than would be possible using an interview. The questionnaires also enabled the recipients to complete these in their own time, allowing time for thought and reflection. Although the questionnaires produced useful information, the main disadvantage of the questionnaire as a research instrument in general, but also in the context of this particular study, is the fact that "there is no opportunity to probe or clarify misunderstandings" (Seale, 2004, p. 166). For this reason two research instruments were used, questionnaires and interviews, allowing the study to benefit from the strengths and advantages of each. The interviews are discussed below in section 3.3.2.

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As the researcher has easy access to two academic programmes at the business school in question it was decided to use the PGDMP programme to pilot the questionnaire, and to use the AIM programme as the focus for the actual study. Both programmes consist of 45 students – which was a manageable number for the scope of the study. To obtain findings that are as representative as possible it was decided to target the entire class on the AIM programme. Apart from the pilot questionnaire which was sent to all students on the PGDMP programme, two questionnaires were sent to all students on the AIM programme – which is the focus of this study. The purpose of these two questionnaires was to investigate the experiences of the students on the AIM programme in relation to two group assignments in two courses. These two assignments, the two courses and two lecturers are referred to as assignment/course/lecturer A and B throughout this paper. The two courses form part of the core curriculum of the AIM programme which consists of eleven courses overall.

The pilot questionnaire was sent via individual email to the 45 students on the PGDMP programme on 7 May 2007. Students were asked to return the completed questionnaire via email to the researcher a week later. Upon expiry of the return date

of the pilot questionnaire the responses were read to assess whether the questions were understood and produced the desired information. In the light of this feedback some questions were shortened, some were combined, and others were more clearly formulated. Out of 45 students, 17 completed the pilot questionnaire which represents a response rate of 38%.

The amended questionnaire (see appendix 1) was sent to the 45 students on the AIM programme via individual email on 12 June 2007 – after completion of all teaching and assessment of the group assignment under investigation which was part of course A. Students were asked to return their completed questionnaires by the end of June. From the 45 students, 21 responded which represents a response rate of 47%. The responses were collated and coded by student names. The names are known to the researcher, as the participants have agreed to participate on the basis that their identities will not be disclosed to any party outside the researcher. The findings from the collated 21 responses were used for a more focussed and thematic review of the group learning literature.

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The second questionnaire (see appendix 2) was then prepared. Most questions remained the same as those in the first questionnaire as they seek the same information from the same students, except this time applied to another group assignment in another course, here referred to as course B. However, a few general questions needed adjusting as students had now progressed through about two-thirds of the one-year programme. The second questionnaire was sent out to the same 45 students, this time via a collective email to the class on 28 August – one day after they submitted the group assignment under investigation. Students were asked to return completed questionnaires to the researcher by 10 September. Due to an intensive two-week module starting on 10 September, this return date was subsequently extended until the end of September 2007. At the end of September 12 out of 45 students had returned completed questionnaires, which represents a response rate of 27%. This was significantly lower than the 47% who completed the first questionnaire and it is suspected that this was due to the fact that the second questionnaire occurred at a busy time in the programme. This was unavoidable due to the timeframe of this study. However, it is believed that 47% and 27% still represent sufficient numbers to provide useful information for the purposes of this study.

Questionnaires were also used to collect data from lecturers. The main purpose of the questionnaire to lecturers was to ascertain their objectives for using group work and their expectations regarding how students engage with the group work. A pilot questionnaire consisting of open-ended questions was sent via individual email to two lecturers teaching on both programmes on 7 May 2007. The two lecturers each teach one of the core courses that make up the curriculum of the AIM and PGDMP programmes. Both lecturers returned the completed questionnaire within a week. Their responses indicated that the questions produced the desired information and no changes were made to the questionnaire.

The piloted questionnaire was then sent to two lecturers on the AIM programme. These two lecturers each teach one of the eleven courses that make up the curriculum. These courses are the same as those on which the two student questionnaires are based. The questionnaire was sent via email to each lecturer when the teaching and assessment of their respective courses were completed – which was in May for course A, and in August for course B (see appendices 3 and 4).

As only two lecturers are involved there was no need for coding of the responses. The lecturers had been informed about the purpose of this study and assured of their anonymity besides the researcher. They agreed to participate on this basis. Both lecturers returned completed questionnaires.

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3.3.2 Interviews

The questionnaires made it possible to send a fairly extensive list of questions to all students on the focus programme. Due to the open-ended nature of the questions a fair amount of quality information was obtained providing good insight into how group work was conducted and experienced, as well as the challenges it posed. Another advantage of the questionnaires was that students could complete these in their own time, allowing space for reflection and formulation of thought. Qualitative interviews were used after collation of the data from the questionnaires in order to increase the validity of the findings. The qualitative interview made it possible to probe more deeply and clarify responses to particular questions. The triangulation of methods – in

this case the questionnaire and the interview – allowed the researcher to “cross-check results and enhance confidence in the research findings” (Seal, 2004, p. 294).

From the 45 students in the group, it was decided to interview ten students. The main reason for determining this number was the time available for the study. These ten students were not chosen at random. Instead the student experiences, good and bad, with group work were taken into account, so that the interview would draw information from a representative group. The instrument used to establish this was the questionnaire. The ten students interviewed represent 22% of the students on the focus programme.

The interviews took place over a period of about two weeks between 19 September and 5 October 2007. Each time the venue was chosen by the student and varied between the office of the researcher at the business school, a group meeting room in the business school, the office of the student at their workplace, or another venue (e.g. the coffee shop) at the workplace of the student. All interviews were recorded for the benefit of the researcher, but students were assured that no other person would listen to the recordings. Students' ideas and words expressed during the interview could be used and quoted but without revealing the identity of the student(s) concerned. All students agreed to participate on this basis. The interviews were recorded by means of a digital voice recorder and the audio files were transferred and saved on computer. The interviews were conducted by the researcher herself. The recordings allowed the researcher to listen attentively without the need to interrupt the flow of the interview by having to take notes. Again due to time considerations no transcripts were made of the interviews – the interviewer made brief notes after each interview to record points of interest raised by the student. The saved recordings were used to play back during the data collation and analysis.

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The interviews were semi-structured around five key themes (see appendix 5). The questions were flexible and adapted to the student and flow of each interview. Compared with the questionnaire, the interview provided the researcher with “better access to interviewees’ views, interpretations of events, understandings, experiences and opinions” (Seale, 2004, p. 182). It was envisaged that each interview would not

last for more than one hour. In practice the duration of the interviews varied between 30 and 45 minutes.

Although the qualitative interview provides important benefits, there are a number of potential disadvantages that need to be considered. The two main disadvantages relevant to this particular study are firstly the fact that information obtained from interviews is difficult to collate and analyse, and secondly that the interview dynamic can be influenced by social aspects, which Seale (2004, p. 184) refers to as "questions of power, difference and ethics". The interview is used as a resource or tool to extract information and is not the object under investigation itself. No discourse analysis of the interviews is therefore required. The interviews are used to ascertain students' views and experiences relating to group work. The second disadvantage of interviews relates to social and power dynamics. The researcher is the interviewer and knows the students well and is involved in the programme in a learning support role. Although the researcher is not involved in teaching and assessment, it is important to be aware of the involved nature of the relationship. The researcher/interviewer is aware that her role is not that of the neutral detached observer. Yet, the advantages of being involved with the programme and knowing the students far outweigh these disadvantages. Without the familiarity with the programme and the close relationship with the students there would not have been the same level of ease and trust during the interviews to discuss difficult issues about group learning and group dynamics.

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As the student experience of group work is the focus of this study, it was decided to only interview students. Even though interviewing lecturers would have provided interesting information, it was felt that this would go beyond the scope and the research questions of this particular study. Added to this is the fact that the views and experiences of lecturers are better represented in the group learning literature than those of learners. Also, the two lecturers who completed the questionnaire did so in sufficient detail to establish their objectives for using group work and the way in which they intend students to engage with the group work. This information drawn from the responses of the lecturers in the questionnaire was supplemented with an analysis of the two group assignments which each of the two lecturers designed for their respective courses.

3.3.3 Analysis of group assignments

The two group assignment briefs (see appendices 6 and 7), which had been distributed to students prior to the start of each course as part of the course outline, were analysed. This analysis focussed on what each assignment brief required groups to do and whether the brief contained guidelines to the groups about how to carry out the task. This analysis was then compared to the information each lecturer provided in the questionnaire about how they envisaged groups should approach the group assignment. The group assignment briefs were examined with one key question in mind, namely, does the task support the learning objectives? This question is addressed in the next chapter by analysing the student questionnaires and interviews, as these two research instruments provide information about how groups viewed and approached each task, and about the learning gained by individual group members. To facilitate a critical discussion of the learning design the two courses, group assignments, and lecturers are referred to as A and B respectively throughout the paper.

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3.4 Data analysis

The questionnaires and interviews were analysed by means of a qualitative or thematic analysis. The questionnaires and interviews provided the information from which themes were induced. However, some of the main themes had already been identified prior to data collection on the basis of the study of the group learning literature, as well as on the basis of the researcher's own observations of group work over a period of about ten years. These themes were used in a flexible manner in comparison with the data that emerged from this study. The main aim of the study is to extract meaning from the data relating to the group work experiences of students and faculty and to provide an overview of the main findings. Quotations are used to illustrate themes emerging from the data. Where opposite experiences or views are present these are discussed and illustrated.

As mentioned above, the data analysis chapter includes an analysis of the two group assignment briefs which the two questionnaires were based on. This analysis looks at the assignment objectives, determines what each assignment required the groups to

do, and assesses whether the task structure facilitated group learning in terms of the learning objectives. These findings are then compared to the information about the actual group learning that took place, as reflected in the data collected through the questionnaires and interviews.

3.5 Limitation of study

The main limitation of this study is its scope – the pilot questionnaire reached 45 students and two lecturers in respect of one group assignment, the questionnaires analysed for this study also reached 45 students and two lecturers, and the interviews reached ten students. The study examines how the latter group of 45 students engaged with two group assignments, one assignment designed by each of the two lecturers for their respective course. Considerations of time limited the size of the study. However, it was also felt that a small but representative sample of a business school population would allow the study to obtain more in-depth qualitative information, which the research topic and research questions demanded. It is therefore the opinion of the researcher that this advantage outweighs the limitation and that the study should be regarded as a small contribution to the research into group learning in management education.

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Chapter 4 – Findings and analysis

4.1 Description of sample

The one-year programme on which this study focusses consists of a class of 45 students. Their average age is 34 years. The ages range from 25 to 46 years. The work experience which the students possess averages at 11 years. The gender ratio is 58% female and 42% male. In terms of nationality 85% of the class is South African, the remaining 15% hold nationalities from other countries in southern Africa.

Except for two students, all are in full-time employment. The majority of students are employed in the corporate sector, some in the public sector, and two are small entrepreneurs. At the beginning of the programme the class was divided up by the programme administration into eight diverse groups of between 5 and 6 students. Students stay in their allocated groups for the duration of the programme. Criteria taken into account to create the groups are the following: gender, race, age, work experience, geographical location, prior educational experience, job sector in which employed, profession in which employed, and performance in diagnostic application tests. The purpose is to create groups that are as diverse as possible, thereby creating a rich learning environment for all students. All formal and assessed group tasks assigned in the different courses on the programme have to be completed by these groups. This study analyses how these student groups have engaged with two such tasks.

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4.2 Description of context

The formal group work which students have to do as part of this programme varies. The most common tasks are group essays, group reports, and group presentations. For group essays, students are usually required to research a topic, and submit a group essay for assessment. Group reports usually require students to either research or investigate a topic, and then to present their findings in the form of a report. Group presentations are similar in the sense that a topic is researched and/or investigated, but then presented in class. Almost every course contains an element of assessed group work. The group mark is awarded for the deliverable, and each group member

receives the group mark – unless students themselves decide to exclude a group member's name from their submission, which only happens on very rare occasions.

Two group assignments are investigated for the purpose of this study: a group assignment in course A, and a group assignment in course B (see appendices 6 and 7 for the group assignment briefs). The two lecturer questionnaires explored, amongst other things, the intended objectives of the two group assignments, as well as the likely process which the two lecturers concerned expect the groups to follow (see appendices 3 and 4 for the lecturer questionnaires).

4.3 Findings

4.3.1 Group work regarded as beneficial

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The literature, discussed in chapter 3, shows that social interaction plays a crucial role in the learning process. One of the key benefits of cooperative learning is that the cognitive development of the individual learner is enhanced through engaging in cooperative learning activities. Sharing experiences, understandings and perspectives not only makes learning more lively and fun. The shared meaning or knowledge that is created is more nuanced and comprehensive as it is the product of a number of different contributions and perspectives. Additionally, the learning is more profound and lasting as students in cooperative learning are more actively engaged in the process compared to traditional learning modes in which the student is a passive recipient of knowledge.

Learning from others in the group features in most student responses, both in the questionnaires and in the interviews. Students felt that working together in groups enabled them to learn from the knowledge, skills and perspectives that each group member contributed to the group. Two examples clearly illustrate how students learned from each other's knowledge. In relation to assignment A one student works for a company that took a competitor to the competition authorities over alleged malpractice. This student had unique insight and knowledge to share which was very beneficial to the other group members in terms of developing their own understanding of the role of competition in the economy from the point of view of different

stakeholders. Reflecting on group assignment A, a student remarked that "sharing ideas with the group made me to understand clearly the competition policy". In relation to assignment B one student works in a manufacturing environment and was able to share his direct knowledge and experience of operations processes with his group members. As a result the other group members were able to achieve a better understanding of the theoretical concepts taught in operations management and apply them to their own non-manufacturing work contexts. The following comment from a student is a good reflection of this: "I […] like to listen to the input from others as sometimes I think my way is the only way and it is always good to see things from another individual's point of view". Another important benefit of group work is that it contributes to building confidence. One student explained that while she found "it difficult to make contributions and take a leadership role in the larger class, but in the small group this was possible".

Also in terms of skills the learning potential in cooperative learning is great – especially in cooperative learning involving adults who, as a result of their life and work experience, bring a vast and varied store of valuable skills to the group. Quite a few examples of such learning came to light in the course of this study. For example, some students had much experience of working with computer technology and were able to share their expertise with others in the group. Other students, because of the work they do, have experience in giving presentations to groups and were able to share this expertise within the group when preparing for group presentations. Also, each group contained one or two members with experience in tertiary education and these students were able to share their research and writing skills with others in the group. Group work also creates an opportunity for peer feedback as the following student comment about group work illustrates: "it provides me with an opportunity for growth as the group becomes my mirror – it gives me the opportunity to work on my weaknesses".

Without cooperative learning, learners cannot be directly exposed to and benefit from different perspectives. For example, the class and group discussion about the skills shortage in the economy was deepened by the presence of an educator. A group discussion about the challenges and the importance of entrepreneurship for the

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national economy, development and job creation greatly benefitted from the perspective of an entrepreneur within the group.

The above examples illustrate the transfer of knowledge and skills between students in the 'transfer-of-knowledge sequence' (Haller et al, 2000, p. 285). The learnings reported by students in the questionnaires and interviews related predominantly to this type of learning. This does not mean that collaborative meaning creation did not take place, but it is likely that students would be less aware of this type of learning. However, a few students did remark that the group discussions helped them in terms of better understanding some of the learning matter – for example in relation to a complex case study. This type of learning is an illustration of the 'collaborative sequence' (Haller et al, 2000, p. 285) where students do not act as tutors or more capable peers to others, but where students as equal learners grapple with the learning matter and through their interaction create new shared understanding and meaning. Observation of the group process would be required to assess the degree to which this type of collaborative learning took place. However, the design of this study did not include an observation of group work and only explored and analysed the student experiences of group work.

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Even though many problems and challenges were reported, this study found that all students felt that they had gained and learned from the group work in one way or another. Some students emphasised how the interaction with others had helped them come to grips with some of the curriculum content in the different courses, other students emphasised their improved interpersonal and team skills. One student comment illustrates the impact which a positive group learning environment has on one's ability to learn – "I learnt that other people can see things differently. By interacting with the group, I could feel the sense of belonging and that encouraged me to participate with an open mind". Also those students who found the group work challenging felt that they learned from the experience – "obtaining other individuals' opinions provided insight in terms of the topics discussed and working with other people was interesting though partially challenging". These findings therefore confirm those of the group learning literature, namely that students generally find group work beneficial.

4.3.2 Learning objectives unclear

In course A the assignment asks groups to research a topic and write a group essay, with an assessment weighting of 20% of the entire course. The group assignment in course B asks groups to observe a process and write a group report, which contributes 25% towards the overall course assessment. The two briefs provide students with guidelines in terms of the topic and what the group deliverable should focus on. The briefs did not specify learning objectives, nor provided information about the assessment criteria. The learning objectives for each of the two group assignments were stated by the lecturers in response to one of the questions contained in the lecturer questionnaire.

In terms of learning objectives, the primary purpose for the use of group work on the programme according to the lecturer of course A is "to act as a simulation of the real world, where you *have* to work with people who are different and think differently than yourself" (emphasis in original). In relation to group assignment A the lecturer added that students without prior knowledge of the subject would be able to benefit from those who do have prior knowledge of the subject. As another learning objective the lecturer stated that "what the market wants from graduates [is] the ability to write clear and concise reports on specific issues ". Specifically in relation to the learning content, lecturer A stated that "I chose competition policy because I think it is more relevant than a topic in macroeconomics. Most of the students work in a private or public sector company in which competition policy is relevant".

The lecturer in course B saw the purpose of the group assignment as two-fold: firstly, as "a proxy for the challenges of collaborative work in the workplace and a space for exploring how to work more effectively in a group", and secondly, to make "a daunting task seem more doable through the support of peers". In terms of the learning content of group assignment B the lecturer stated the following: (1) "To understand and apply the tool of process mapping and its role in process improvement" (2) "To understand the interaction of process on how an organisation competes in the marketplace" and (3) "To understand/appreciate that the tools of operations can be applied to a services environment".

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Both lecturers provide a combination of learning objectives that relate to the acquisition of content knowledge, team and other skills. It is important to note that these learning objectives are provided in response to the questionnaires and were not communicated to students via the assignment briefs or course outlines. Discussions with students made it clear that they understand why group work is part of the entire programme, but the specific objectives for group work within each course and group assignment are not provided. Students generally saw the subject content in each of the two group assignments as the learning objective, i.e. to learn about competition and competition policy in assignment A, and to learn about process mapping and how it can improve operations in assignment B.

One student expressed his surprise when the marks for assignment A were released, because the grade and feedback only related to the essay and not to how the group had worked together. This points at a problematic issue in the design and assessment of group work. The lecturer in course B commented that "I don't actively grade or explore the first purpose [to work effectively in a group] – I assume this is covered in other courses". From the student responses it is clear that the lack of clear learning objectives and related assessment criteria for group assignments lead to confusion in terms of the purpose. Students assume that what is assessed is important. As a result, the focus with each of the group assignments became the deliverable that would be assessed – i.e. the written group essay and report, not the group process. These findings therefore support the need, firstly, for a clear communication to students about the intended learning objectives of each task (group as well as individual) and, secondly, the need for an alignment between the objectives of each task and the way in which the learning outcomes are evaluated and assessed. To achieve the intended learning objectives there must be alignment or congruence, as Biggs (1999) and Rust et al (2005) argue, in the entire learning design – from purpose and objectives, to methods and assessment. Besides the need for constructive alignment, this study has shown that it is important, particularly in the case of adult learners, that the aligned learning objectives, learning methods, and assessment criteria are communicated to learners at the start of each course and assignment in a comprehensive and transparent manner.

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4.3.3 Division of group work into individual work

In terms of process, the lecturer of course A expects groups to start by interpreting the question, then read on the topic, put together a structure for the essay, do more reading, draft different sections (probably by different students), compile, integrate and edit the report. Interestingly, in the questionnaire the lecturer adds the following comment: "While I write this down, I realise that I do not give them guidance on this methodology. I assume that students will work it out for themselves". When asked how the group assignment helps to develop team skills the lecturer comments "I don't really know. I presume that there is some division of work, but how this is done is unclear to me". In order to complete the task in course B the lecturer expects groups to go through the following process: meet to discuss the assignment, visit the site to obtain permission, have a planning meeting prior to the site visit, visit the site and record observations, then meet to collate, analyse and discuss the data, formulate recommendations and compile the report. The intended group processes for each of the group assignments, as outlined above, were provided by both lecturers in response to the questionnaire for this study. As the above comment from lecturer A illustrates, no guidelines in terms of the steps or process required in order to do this assignment were communicated to groups in the assignment brief. In other words, the groups knew what end-products had to be produced, but had to work out by themselves how to achieve these deliverables.

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The above paragraph has outlined the process which both lecturers expect the groups to follow in order to complete the group assignment. What follows is a discussion of what actually happened as became clear from the student questionnaires and interviews. The main challenge which students experienced in relation to task A was how to carry it out. From the student responses it is clear that all groups met initially to clarify the assignment question – some also discussed the topic at their first meeting. Some groups allocated sub-topics to individual group members to research and report on at a next meeting. However, most groups used their first meeting to divide up the writing of the different essay sections between themselves, with one person in charge of integrating all sections at the end. In some groups this took the form of two students working on the introduction, two on the body of the essay and two on the conclusion. In most groups individual group members volunteered to write

on the sub-topics they knew most about or understood the best. Most students commented that they found it very challenging to write one essay as a group of 5 or 6 students – especially as the assignment had to be done during the inter-modular period when they were not on campus. One student remarked that "Not enough time was given to discuss and debate. We did it via e-mail". An important point is highlighted by one student in response to the question whether this assignment assisted the student in learning the key concepts related to the topic. The student answered "No, when an assignment is broken in parts, and pieces become the responsibility of certain members, one tends to miss out on other important material which is of course assigned to other members". In relation to task B, the student responses made it clear that practically all of the intended steps were followed by the groups, except for the planning meeting prior to the site visit to observe and map the operations process. It may well be worth giving this feedback to the lecturer so that this can be taken into account when redesigning the course and group assignments for future students.

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A key finding from the student questionnaires and interviews was the high degree of division of labour that took place in relation to group assignment A. This places a question mark over the extent to which the two main objectives of group work are met in the course of this group assignment. Are team skills developed if students can divide up an assignment into individual tasks which they work on by themselves without group interaction? Can students contribute to each other's learning if the assignment does not require them to discuss and work together? The structure of this assignment made it possible for students to not fully engage in group learning. Only one out of eight groups consciously decided against this, as explained by one student from that group: "What other groups did was divide up the work and assign each member a specific task. Our group decided wholeheartedly that this was not an option as they came to expand their knowledge base in all areas". Although the insight of this one group displays a responsible and mature attitude to learning, this cannot be assumed or expected.

There was less evidence of groups dividing up and sharing out the work among individual group members in relation to group assignment B. This should not automatically be ascribed to the nature of the task, as the timing of the two assignments was different. Assignment A took place after module 1 in March, while

assignment B took place after module 2 in June. As a result group members knew each other better during assignment B. The following comment illustrates this well: “I think by the time we were doing the mapping project, as a group we were functioning better. I mean we were having a better understanding about our shortcomings”. However, in relation to assignment B several students commented that it demanded participation from all group members. As one student remarked, “it was the most challenging group assignment which demanded contribution from every member”. Another student commented that assignment B “demanded real cooperation and talking most of the time rather than doing your own piece of work for the group”.

Yet, although the different knowledges, skills and perspectives present in each group can greatly enhance individual learning, much depends on what group tasks require of students in terms of how they engage with each other. The implications of task division for learning can be detrimental. Comments from the majority of students have shown that when tasks are divided, students choose or are allocated a task which they can do well as a result of prior experience or prior knowledge. In other words, students end up doing what they are best at. Those who write well, will do the writing, those who present well, will do the presentation, those who have experience in doing research, will do the research, those who work in marketing, do the marketing assignment, those who work in operations, do the operations management assignment etc. That subdivision allows students to work in their areas of strength or expertise is illustrated by the following comment: “As I am proficient in Office applications I volunteered to put the essay together”. Another student explained that in her group “the coordination of the Operations assignment was allocated to [the student] who works in an operations environment”. Splitting up tasks has two major implications for individual learning: firstly, students do not get the opportunity to strengthen areas in which they need development, secondly, when tasks are divided up and done individually the potential for shared learning and shared meaning creation is reduced.

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But students are not to blame. Learning design and assessment drive learning. If only the end product is assessed, students will naturally choose the route that they think will lead to the highest mark. From a student point of view it is logical to get the best presenter to deliver the group presentation, or to get the marketing expert in the group to do the marketing assignment. Adult learners in particular are often pushed into this

type of division of labour, even when they know that it is not ideal from the point of view of individual learning. The reason for this is that adult learners are busy and juggle study, work, social and personal demands – so the temptation is great to choose what is perceived as the most efficient and effective route. Students at the institution in question are faced with a contradiction: on the one hand the school communicates to students that group work is part and parcel of learning at the institution because it enhances team skills and learning, on the other hand group tasks are designed and assessed in a way that discourages cooperative learning. The key therefore lies is resolving this contradiction. On the one hand there is widespread agreement, evident from the group learning literature as well as the lecturers involved in this study, about the reasons for and the potential benefits of group work. Yet, on the other hand, several studies – including this small-scale study – have highlighted that not all group work necessarily enhances individual learning.

If the learning objectives require students to work together, it follows that the educational challenge is to design the group task in such a way that it cannot be split up and shared out among individual group members. The design of the task should ensure that students interact and work together. The way in which a group task is designed should facilitate, rather than hamper, group learning. The findings from this study, as well as those from the group learning literature, illustrate that tasks are often designed and assigned to groups without sufficient thought about how the task will stimulate group interaction and support learning. It is clear that designing opportunities for group learning involves more than allocating topics to groups. Rather, it requires careful thought and planning. The implication is that if the design of the task makes it possible for groups to split the task into pieces of individual work, the learning objectives of the group task will be compromised.

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4.3.4 Non-participation of group members

The student questionnaires and interviews, as well as interactions between the researcher and students throughout the year, have shown that practically all groups experienced problems in relation to group work on the programme. The group assignments which are the focus for this study formed no exception. A major problem reported was that of non-participation or free-riding – i.e. groups with one or two

group members who ride free on the efforts of the rest of the group and do not participate or contribute, yet earn the group mark.

The student responses made it clear that participation and contribution were unequal in most groups to differing degrees. Students expressed their surprise on finding out in the course of the programme how little commitment some group members displayed to the group work. The application process to be accepted on to the programme is extensive and involves each applicant to consider their motivation to study, their preparedness to undertake intensive study for one year, and their willingness to engage in group work. As a result, highly motivated and committed students entering the programme expect the levels of commitment and motivation of other students to match those of their own. One student commented "I didn't have any expectations [about group work] to start off with other than I really didn't expect that we would have anyone who wouldn't contribute! Which was exactly how it turned out". Another student's comment on the same issue – "I did not anticipate members to be as apathetic as they were. It appears that some rely more heavily on others doing the work and take a back seat". The following comment reflects well what happened, to differing degrees, in many groups – "it ended up that 2-3 members have drawn the assignment".

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The implication of non-participation for learning in group work is great. Not only do non-participating members not derive any benefit as they absent themselves from the group work, the participating members left in the reduced group end up with a diminished scope and opportunity for interaction and shared learning because of the missing members.

The earlier section discussed task design in relation to group tasks being divided up into individual tasks. It is evident that if the design of a task does not require the full group to participate, that it becomes easier for some members, for one reason or another, to not contribute. This situation also makes it easier for the rest of the group to 'tolerate' the situation as they can manage the assignment without the others. Therefore the solution to the problem of the division of group tasks, as well as to the problem of non-participation in group work, lie in designing tasks that require

everyone's participation and that are characterised by high levels of interdependence between group members.

4.3.5 Lack of interdependence and interaction

Several educational researchers, e.g. Slavin (1983) and Johnson et al (1994), have shown that interdependence is one of the key conditions that must be in place for successful group learning. If the contribution of every group member is critical to the achievement of the learning outcomes and objectives, then the group task must be designed in such a way that group members depend on each other's participation and contribution. The interdependency that the task requires must be as high as possible. Educators need to ensure that the group tasks which they design meet this condition. This requires thought and planning beyond the allocation of essay topics to groups. Colbeck et al (2000, pp. 70-72) outline that interdependence can relate to different aspects of the task, for example goal, role, or resource interdependence. One needs to consider the process that is required and what type of task will demand the input and active participation of every group member. De Vita (2001, pp. 28-29) provides an excellent example of how a group project "that offered little or no scope for active cooperation" was re-designed into a task – without changing the topic – that required "intense group interaction and high-quality input based on critical evaluation from all members".

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Both assignments investigated for this particular study did not require high levels of interdependence. Assignment A required a topic to be researched and an essay to be written which could well be done by an individual student. One could argue that by doing this assignment on one's own a student would learn less, but that is not the point. The point is that the design of the task made it possible for group members to either divide the task into little ones and/or for some group members to withdraw from the process and let others do the work. Assignment B required a higher level of interdependence as group members had to observe one process and record this into one process map. Yet, the student questionnaires and interviews revealed that, although sub-division of this assignment was not easily possible, the assignment design did make non-participation possible as illustrated by the following student

comment: “absenteeism and incomplete or no contributions from some of the members hampered our progress”.

The fact that the two tasks did not require high levels of interdependency also meant that group members were denied the opportunity to improve their team skills. The fact that some did not participate or contribute did not force the others to address this situation, as it was possible to complete the task without them. The design of the task made it possible for the diminished group to continue even though one or two group members were missing. A key leadership and managerial skill is how to deal with performance related issues. Tasks that require everyone’s contribution provide an opportunity for addressing and resolving these issues. Therefore, also from the point of enhancing team skills a learning opportunity was lost. In respect of both assignments, those left carrying the can complained afterwards that ‘it was not fair’ that those who did little or nothing obtained the group mark. They were concerned about fairness, rather than about the fact that the group’s performance and their own learning were compromised as a result of non-participation.

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As shown above, both assignments did not require high levels of interaction. Interdependency and individual accountability were low. When interdependency and individual accountability are low, group problems readily arise. A comment from a student made this very clear – “lecturers should design a topic that encourages group discussion and participation. A topic that does not encourage group participation will create conflicts as only one person will be able to tackle it”. An important finding therefore is that the group problems which students experienced, as reflected in the questionnaires and interviews, are not a result of group work in and of itself, but are rather a result of the way in which the assignments were designed. As Michaelsen et al (1997) found, dysfunctional groups “are the result of bad assignments, not bad learners” (underlining in original).

4.3.6 Conditions leading to group conflict

The findings suggest that many groups experienced conflict. Apart from the issue of non-participation which has been discussed above, a second cause of conflict was interpersonal relations within the group. The students’ comments showed that a

common challenge is the issue of leadership and democracy within the group. Some groups appointed a group leader who turned out to be ineffective, others ended up with an autocratic leader – both negatively impacting on the group. One student commented that "on some occasions our team leader was not open to some of the group's contributions which caused tension within the group". A student on the receiving end of this felt quite bitter as the following comment illustrates: "I felt that my input was always disregarded". A student in a group that experienced a lack of leadership and effective planning remarked that "there was a period of silence until the last week before the due date". Another commented that "the group leader was supposed to compile the document and act as liaison […] for the group. This did not work out as planned as the 'group leader' passed this duty on at the last minute without consultation".

In terms of group dynamics many students felt that the difficulties they experienced were partly caused by the fact that group assignments had to be done before group members had had an opportunity to get to know one another. For example, a student commented that "we had a lot of conflicts because we did not understand each other", and "it was not [an] easy task since we were just meeting for the first time as a group". Another student commented that "With hindsight our group did not communicate and discuss enough, which limited our learning". This raises quite an important issue, also discussed in the group learning literature, that setting group work or group assignments cannot be done without adequately preparing students for group work and providing subsequent support while students are engaged in group work.

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All students felt that the group work during the campus-based modules was more successful than during the inter-modular periods. They explained that face-to-face meetings during the modules when everyone is on campus worked better not only in terms of discussing learning content, but also in terms of group dynamics, group process and individual accountability. They felt that group members were not only present, but focussed better, and were better prepared. Conducting 'discussions' via email proved either impossible or difficult. During the inter-modular periods many groups 'lost' one or two group members and many problems were experienced. Reasons provided for this were lack of individual preparation, commitment and/or communication, but also the difficulty of having discussions without being in the

same place. Students also remarked that it was easier for the group to operate in the physical environment of the institution, with all resources (material and human) in close proximity. Many of the lecturers on the programme are used to teaching full-time or part-time students. It is clear from the students' responses in relation to group work that a modular or block-release programme is challenging – not only for the learners, but also from an educational design point of view.

Although the institution has an e-learning platform, its use tends to be limited to transmitting learning materials and announcements to students, and the submission of assignments by students. Although students can use the e-learning platform as a learning tool for group work and group discussions on an optional basis, it is not incorporated as an educational tool in the learning design. One student, for example, mentioned that "one lecturer provided electronic feedback on drafts submitted via Instructor and if other lecturers did this, it would help us with our learning". This could well be an important tool to support off-campus learning, as it could increase the level of group interaction and at the same time make the interaction 'visible' to lecturers so that feedback becomes possible. This would give lecturers insight into how students engage with the learning content, as well as how individual members are contributing to their group – thereby increasing the level of individual accountability.

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A key rationale for the use of group work in management education is the fact that employers rank "the ability to work efficiently and effectively with others … as one of the most important attributes for business school graduates to possess" (Chapman et al, 2006, p. 557). The findings of this study certainly support the fact that the group activities that were undertaken during the year were regarded by the majority of students as enhancing their team skills. Many students commented how their listening skills had improved. Some explained that they had learned not only to listen more attentively and patiently, but that they were also able to listen for meaning – i.e. without allowing preconceived ideas to interfere with listening to and understanding the opinions and perspectives of others. One student remarked that as a result of his experience on the programme, he conducts himself differently during discussions and meetings at work. He explains that he is more aware of others in the group in terms of their interests, emotions etc. He feels that as a result, he is able to be more effective in his interactions with others in teams.

Another student remarked that the group work taught him how important it is to support your views with reasons, evidence and arguments in order to convince others. He explained that in the workplace you tell your team something, and people will just follow you because of the hierarchy that exists in the organisation. In group work on the programme he experienced team work among peers who are one's equals and that stating your opinion is not enough to convince others. Using authority also does not convince others. He learned that he needed to research and explain his opinions in order to convince others. This again is an example of a team skill that is directly transferable to the workplace where effective managers are expected to be able to interact with each other in well-supported discussion and debate.

While positive results were reported by student in terms of the enhancement of their team skills, it must also be noted that most of the problems which groups experienced in terms of non-participation or non-contribution were not resolved. Although attempts were made and improvements were reported by students in some groups, the issue of non-participation or non-contribution has featured throughout the programme. If the enhancement of team skills is one of the key objectives of group work, then this should be reflected in the design and assessment of group learning. Allocating an essay topic to a group, and then awarding a grade to the group essay at the end, is sending the wrong message to the group. This shows that only the end-product has value, not the process. If both are important, this needs to be reflected in the design, support, and assessment.

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4.3.7 Insufficient integration of group work

Apart from ensuring that assignments require the input of every student, an integration of group learning into the course curriculum can contribute to high levels of interaction and individual participation in group work. The lecturer of course B indicated that the final exam would include a question based on the content of the group assignment. This meant that students with good levels of participation in, and good contribution to, the group work would automatically be well prepared for the final examination in relation to that particular aspect of the curriculum which the group assignment covered. The design of the overall course by lecturer B was therefore characterised by an integration of group work to support individual learning.

This was not the case in course A, where the topic assessed through the group assignment did not feature in any subsequent individual course work or assessment. The knowledge that could be acquired through the group activity was not required for individual performance on the course. A common complaint from students in a group with free-riders was that the non-participating group members, because they absented themselves from the group work and group meetings, had more time available than the others to concentrate on their individual work. As a result, the non-participating group members were advantaged in the eyes of the other students because they obtained high marks for individual work, and still obtained the group mark to which they had contributed nothing. This contrasts with the situation the other students found themselves in – they were left to do the assignment without the contribution from the missing group members, had less time to focus on their individual work as a result and ran the risk, if they failed their individual work, to not be allocated the group assignment mark for which they had worked so hard. Needless to say this situation caused a lot of bad feeling and worsened relations within the groups.

This therefore supports the finding that group work should not be treated as a separate tool for a separate part of the course curriculum. Rather, it should be one learning tool in a range used in order to support individual learning in respect of the entire curriculum. If group learning is integrated into the curriculum and if group tasks require high levels of interaction, common group work problems like sub-division of work and non-participation can be prevented – thereby promoting individual learning.

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4.3.8 Group support lacking

A number of students, in particular during the interviews which allowed for a more meaningful exploration of the challenges which groups experienced, raised the issue of support for the groups. They felt that groups were allocated a task and left to get on with it. There was no interest or involvement from the side of the lecturer or the programme administration in terms of how the group was coping with the task. One student, for example, suggested that “the lecturers make time available […] to give feedback to all groups” and explained that “this will allow the groups to openly discuss the outcomes of the assignment and to look at how best to improve on group work responsibility”. Also, as mentioned earlier, how the group coped with the task

did not influence assessment. Some groups that functioned poorly, were surprised with the high mark which their group assignment received, while some groups that worked relatively well together were disappointed with the low mark which they received.

One support feature incorporated into group assignment B was that the lecturer encouraged groups to submit draft reports for feedback about four weeks before the due date and was available to meet with groups to discuss their work in progress. Although both the submission of drafts and the progress meetings were optional, the lecturer's interest and support stimulated individual student accountability, and as a result enhanced group functioning. The idea of progress meetings or reports was raised by one of the students who remarked that "support and regular progress reports will also help us keep track".

Generally students expressed the need for more monitoring and support during the group process – both from a content learning, as well as from a group process point of view. Some suggested the use of group mentors. The study has shown that providing tools prior to the start of group work is useful, but not enough. For example, one student felt that "the lecturer who taught a session on group dynamics before the groups were put together, should be available later on to help when the group work is actually happening". The same student said that "feedback on the group charter" and "advice in terms of how to handle group meetings would have been useful". Well designed group learning needs to incorporate a support structure that is available throughout each course on the programme.

The study also found, as discussed in relation to assignment B, that formative feedback is an important tool in supporting group learning. Meeting with groups and providing feedback on work in progress contains elements of monitoring, individual accountability, as well as support. It provides support to groups in terms of getting to grips with the content that is being learned as well as support to the group process by stimulating critical evaluation and thought. By engaging with groups, lecturers also gain more insight into the group process and non-participation and sub-division of work are less likely to occur.

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4.4 Conclusion

The study set out to examine the student experiences of group work and to obtain an understanding of what causes the main difficulties which are experienced with group work so that improvements can be suggested. The above discussion of the findings has shown that even though the conditions for effective group work in this study were far from ideal, all students still felt that the group work had helped them improve their team skills and many felt that the group work had assisted them in their learning on the programme. This highlights the powerful impact that group work – under improved circumstances – can have on individual learning. The next chapter will examine the conclusions and consider how conditions for group work can be improved. Based on this the chapter will make a number of recommendations.

Chapter 5 – Conclusions and recommendations

5.1 Original aims and key findings

This study started with an awareness that group work, although generally regarded as a good learning experience by many students, is often accompanied by unhappiness and conflict. Before the launch of the study it was clear that groups which experience conflict and poor group functioning are often not able to create an environment that is conducive to learning. Social interaction is regarded as key to the promotion of individual learning and development. The concern was that poor group functioning reduces the degree of interaction in relation to the learning matter, thereby creating conditions in which little learning can take place.

One of the theoretical aims of this study therefore was to examine the literature related to group learning, with a special focus on group learning in management education. A second theoretical aim was to explore and analyse the experiences of learners in relation to group work in management education. These two aims were motivated by one objective, namely to ascertain what conditions hinder and promote learning in groups. Linked to these theoretical aims and objectives are the strategic aims which drive this study, namely to better understand what causes the difficulties experienced with group work, and on the basis of this better understanding to make recommendations towards improving the design of group work approaches, thereby enhancing learning.

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The findings confirmed that, regardless of the problems which students faced when working in groups, students felt that the group work was beneficial to them. Some students directly related some of the benefits which they gained to the problems that were experienced. They felt that as a result of having to deal with difficult group situations, they were able to improve their team and interpersonal skills. For example, in response to the first questionnaire 60% of students found that the main benefit from the group work was in the area of team and interpersonal skills, while approximately 20% of students were also conscious of the way in which the group work had helped them get to grips with the learning content.

The study's findings therefore confirm that group work is a powerful learning tool. As examples of improved team and personal skills students mentioned improved listening skills, patience, being open to other views and perspectives, knowing when to step in and lead, but also knowing when to step back and not dominate, the ability to be tolerant of other views, the ability to compromise, etc. Students felt that the experience had prepared them to be better team members in future. Quite a number of students commented that they did not only make use of these newly developed skills in the learning environment but also in the workplace, as well as in social and family contexts.

The findings of the study highlighted two main areas of concern: sub-division of group assignments into individual tasks, and non-participation by some students in practically all groups. Prior to the launch of this study the researcher was aware, through own observation of group work and through the literature reviewed, that these are two common problems associated with group work. Besides confirming the existence of these two problems, the study exposed the high degree in which both sub-division of work and non-participation occurred. Without this study much of the sub-division and non-participation that occurred would have gone unnoticed or unreported. This is worrying, as learning theory is clear about the role of social interaction in promoting learning. If social interaction in education is reduced, opportunities for learning are reduced too.

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The experiences of the students, as well as the group learning literature, suggest that many group work problems, including the two referred to above, stem from the way in which group learning and group activities are designed. The study found that the overall design of the group work that was examined promoted poor group functioning. The design of group activities was generally characterised by an absence of clear learning objectives, the activities were not well integrated into the overall course design, the activities did not require high levels of student interaction, interdependence and accountability, and lastly the design did not include support for the group process. What follows is a brief overview of each of these four conclusions.

Firstly, learning objectives were unclear. The assignment briefs indirectly communicated to students that only the end-product or deliverable mattered. Although

both lecturers clearly communicated the entire set of learning objectives for the group assignments to the researcher, the students did not have this information. The study made it clear that learning objectives need to be clearly stated and communicated to learners, particularly in relation to group work. Students need to know that the group process is regarded as just as important as the final product of the group work – in fact, they need to know that good participation and good group process will most likely enhance both the final group product and individual mastery of the learning content.

Secondly, the study showed that when there is a lack of integration of group work into the overall course design and curriculum, some individuals absent themselves from group work and concentrate on individual study. This caused groups to disintegrate or fragment, and often led to unhappiness, feelings of unfairness and conflict. One of the two assignments examined illustrated that when the content of group work is integrated into the overall course design and also assessed individually, this encourages active individual engagement with the group process. This therefore is an effective way to prevent non-participation.

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Thirdly, the study of group learning literature and theory made it clear that group work must be designed in such a way that it requires maximum interaction and participation. In fact, group work should be designed in such a way that it cannot be done without every group member's contribution and participation. High levels of interdependency, interaction, and individual accountability will ensure that all group members engage in, and benefit from, the learning exercise. The fact that social interaction, i.e. the process of group work, is important should be reflected in the attention and value that it receives. The group assignments did not require high levels of interaction, participation and accountability, which made it possible for sub-division and non-participation to happen.

Lastly, the study showed how little knowledge lecturers have of what happens in the groups and how the groups approach the assignments. Quite a number of students expressed the view that they would have appreciated it if more interest had been shown in how they were doing and working as a group. Lecturers need to be available to monitor and support groups while they are engaged in group learning. Formative

feedback to groups while they are tackling the learning matter will stimulate further interaction and deepen learning. Through their observation of the process, lecturers will also be alerted to group tension that may need support or facilitation. The assessment of group work should relate to all key learning outcomes, as assessment communicates to learners what is important and valued. If process and product are important, this needs to be reflected in the assessment group work.

If all the above are taken into account when designing and planning group learning activities, sub-division, non-participation and related group conflict are less likely to occur. This does not mean that no conflict will occur. Yet, a more conducive climate will have been created for group learning. This requires an alignment of the entire teaching and learning process – from the learning objectives, to curriculum design, teaching methods, learning approaches, support structures, and assessment.

5.2 Implications for theory

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The findings of the study are in line with those reported in the group learning literature which argue that poor group experiences often result from poorly designed group tasks. The one surprise finding was the high degree of sub-division that takes place. There is more awareness at the institution, and also in the literature, about the problem of non-participation as students are more likely to voice unhappiness about this issue. Sub-division of group work is generally not regarded as problematic by learners and therefore goes unreported. Sub-division only becomes noticeable when educators observe the group process – which usually does not happen.

One of the main purposes of group work in management education is the improvement of team and interpersonal skills to prepare students to be more effective team players and managers in the workplace. Yet, the way in which many groups approached the work, took away the most vital part of group work, namely interaction. Groups would meet to discuss the task, split up the task into little ones, share out these little tasks among the group members, and allocate a group leader, coordinator or editor the task of putting all the bits together. Not only did this reduce the opportunity for collaborative learning, it also reduced the opportunity to experience team dynamics. The group work often resembled an operational team

approach that relies on delegation, but it is not an approach that is suited to the learning environment where the interaction about the learning matter is the crucial component. In other words, in an educational context group interaction and intensity must outweigh efficiency, while in a workplace context this is likely to be often the other way round. This means that even the groups that do not report problems or conflict, may not be operating in a manner that is conducive to learning. It is therefore argued that the over-emphasis of the acquisition of team skills as an outcome of group work in business education, may lead to group work approaches that do not promote quality learning.

The group learning literature tends to focus on examining and addressing the problems that are noticed or voiced. Yet, as seen above, sub-division – which negatively impacts on individual learning and development – happens quietly in groups that on the surface appear to be functioning well. The findings of this study therefore underline the importance of studying and analysing the entire group process. A holistic study of group learning is more likely to lead to a better understanding of the conditions that create a good climate for learning in groups, than an isolated focus on particular aspects of group work that do not appear to be working well.

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5.3 Recommendations for practice

The recommendations that follow are drawn up in the context of the institution where this study was conducted and are therefore tailored to the specific contextual conditions and practices that characterise group work in the institution. However, it is believed that these recommendations will be of value to group learning in similar contexts.

A first recommendation is that learning objectives for group work are clearly articulated and communicated to learners, in particular in the context of group work in management education as this involves adult learners. Knowledge of what the group activity aims to achieve will clarify to learners what is important. If learners know why the activity has been assigned to a group, as opposed to an individual student, they will be more likely to engage fully with the process.

A second recommendation is that one aspect or part of the curriculum is not restricted to the group learning activity and assessed through the group task only. To encourage full participation in the group activity from every group member it is important to evaluate and assess individual learning gained from the group task. There are many mechanisms to achieve this. For example, one of the lecturers participating in this study allocated one exam question to the group work learning matter. Other suggestions, like group or collaborative tests, are discussed in the group learning literature.

A third recommendation is that group tasks are designed in a way that stimulates discussion and interaction. There are no ready-made answers as to how this is to be done, as much will depend on the learning context and learning matter. In relation to the group task about competition policy that was investigated for this study the assignment could be rephrased asking individual group members to research the competition issue from the point of view of different stakeholders involved. Bringing different perspectives to the next group meeting would have made for very interesting and lively debate. The need to reach consensus in order to get the task done would ensure that groups will have to engage and interact – and it is precisely during this engagement and interaction that learning takes place. Such a task design will ensure that the group task relies on preparation, contribution and participation from every group member – thus making sub-division and non-participation virtually impossible. Group members will depend on one another to be able to complete the task.

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A fourth recommendation relates to the support structures that need to be available to guide groups through the process of the group learning activities. These support structures can be many. This study found that lecturers tend to have very little knowledge of what happens in groups, and that some form of engagement with groups while they work on tasks may assist in providing formative feedback and ensuring that the group is functioning in a satisfactory manner. Such a form of engagement would serve two purposes, firstly to stimulate thinking and learning, and secondly to promote individual engagement and accountability.

Evaluation and assessment have not been the focus of this study. Yet, the findings did discuss the importance of alignment between learning objectives, methods and

assessment. A last recommendation therefore relates to the need to consider the issue of evaluation and assessment. If group process is an important aspect of the learning objectives, this should be given due weight through the assessment process. Groups could be asked to evaluate and assess their own functioning as a group. Groups could also be asked to maintain a group log recording all meetings, individual preparation for the group meetings etc. Group tests could also be considered which test the collective learning achieved. This would link the success or failure of each individual with that of the other group members (Haller et al, 2000).

However, it is not the purpose of this study to redesign the two group assignments that were studied to make them more conducive to group learning. Yet, it is believed that if the above recommendations are considered when redesigning the above tasks some of the problems experienced by the groups in 2007 may be avoided and more profound learning may result. The findings of the study underline the key role of task design in creating conditions that are conducive to collaborative learning.

5.4 Weakness in research design

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The study was based on the opinions and perceptions of 45 students and 2 lecturers. It was the aim of the study to explore the experiences of students, and lecturers to a lesser degree, in relation to group work. With hindsight it would make a similar study and its findings more comprehensive and reliable if, in addition to the student and lecturer experiences, some of the group processes were observed and analysed by an outsider in order to add a non-participant perspective or researcher perspective to the analysis of what happens in groups.

5.5 Further questions and research

A major question, in particular in relation to group work in management education, is the extent to which group work enhances learning. Much emphasis in the context of management education is placed on three benefits of group work, namely the acquisition of team skills, the transfer of existing skills and knowledge between individual group members, and the fact that group work makes large tasks more doable. There seems to be less emphasis, and possibly awareness, in management

education regarding the contribution that group work can make to individual learning through the collaborative process of negotiating and creating meaning. This latter aspect therefore calls for further study and research.

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Appendix 1 – Student questionnaire (June 2007)

Please type in your answers using as much space as you need and return the completed questionnaire to annekedu@gsb.uct.ac.za by the end of June.

1. The group assignment for Economics was one of the first group assignments on the AIM programme. What was your experience with this assignment? Please explain what worked well and what did not.

Answer:

2. Did your experience of the Economics group assignment match up to your expectations of group work before the programme started? If so, in which ways? If not, why not?

Answer:

3. How did your group plan and carry out the work involved in the Economics group assignment? Please list and briefly describe the activities of the group from the start till the submission of the assignment.

Answer:

4. Did your group experience any difficulties in carrying out its plan for the Economics group assignment? If so, please explain.

Answer:

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5. If your group experienced any difficulties (see question 4), was your group able to resolve these difficulties? If so, please explain how.

Answer:

6. Did your group experience any conflict while doing the Economics group assignment? If so, please explain.

Answer:

7. If your group experienced any conflict (see question 6), was your group able to resolve this conflict? If so, please explain how.

Answer:

8. Looking back on your experience with the Economics group assignment, what would have made the assignment more manageable?

Answer:

9. What was your own most important learning from doing the Economics group assignment? You may comment on your learning in terms of the subject content as well as group dynamics, interaction and cooperation.

Answer:

10. How were roles and tasks in the group decided on for the Economics group assignment?

Answer:

11. Did this group assignment assist you in learning the key concepts related to the relevant part of the Economics course? Please explain.

Answer:

12. In addition to learning about Economics and competition policy, please describe any new insights or skills you gained by being a member of the group.

Answer:

13. Did all group members equally contribute to the Economics group assignment? Please motivate your answer.

Answer:

14. Did the Group Dynamics sessions offered at the start of module 1 assist you in coping with the demands of group work and this group assignment? Please explain.

Answer:

15. Do you have suggestions for lecturers (in any subject) about de design of future group assignments? Please explain.

Answer:

Thank you very much for your time and your willingness to participate!

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Appendix 2 – Student questionnaire (September 2007)

Please type in your answers using as much space as you need and return the completed questionnaire to annekedu@gsb.uct.ac.za by end of September.

1. The Restaurant Mapping group project for Operations Management was the most recent group assignment. What was your experience with this assignment? Please explain what worked well and what did not.

Answer:

2. How did your experience of the Restaurant Mapping group project compare with your experience of other group assignments on the AIM programme? Please explain any similarities and/or differences.

Answer:

3. How did your group plan and carry out the work involved in the Restaurant Mapping group project? Please list and briefly describe the activities of the group from the start until the submission of this group project.

Answer:

4. Did your group experience any difficulties in carrying out its plan for the Restaurant Mapping group project? If so, please explain.

Answer:

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5. If your group experienced any difficulties (see question 4), was your group able to resolve these difficulties? If so, please explain how.

Answer:

6. Did your group experience any conflict while doing the Restaurant Mapping group project? If so, please explain.

Answer:

7. If your group experienced any conflict (see question 6), was your group able to resolve this conflict? If so, please explain how.

Answer:

8. Looking back on your experience with the Restaurant Mapping group project, what would have made this group project more manageable?

Answer:

9. What was your own most important learning from doing the Restaurant Mapping group project? You may comment on your learning in terms of the subject content as well as group dynamics, interaction and cooperation.

Answer:

10. How were roles and tasks in the group decided on for the Restaurant Mapping group project?

Answer:

11. Do you agree or disagree with the following statement?

"Group work is an effective teaching method and it assisted me to learn the key concepts in the Operations Management course."

Answer: I agree / disagree[1] for the following reasons:

12. In addition to learning about Operations, please describe any new insights or skills you gained by being involved in this group project.

Answer:

13. Did all group members equally contribute to the Restaurant Mapping group project? Please explain.

Answer:

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14. Did the experience of earlier group assignments on AIM assist your group in coping with the Restaurant Mapping project? Please explain.

Answer:

15. Do you have any suggestions for improving future group assignments on AIM? Please explain.

Answer:

Thank you very much for your time and your willingness to participate!

[1] Delete whichever does not apply

Appendix 3 – Lecturer questionnaire (May 2007)

Please type in your answers using as much space as you need. I would appreciate if you could email the completed questionnaire to me (annekedu@gsb.uct.ac.za) by Monday 28 May.

1. What do you see as the purpose(s) of group work on the AIM programme?

Answer:

2. What do you see as the purpose(s) of group work on the AIM Economics course?

Answer:

3. What is/are the learning objective(s) of the group assignment which is part of the AIM Economics course?

Answer:

4. How does the AIM Economics group assignment facilitate the learning of key concepts in your subject area?

Answer:

5. How does the AIM Economics group assignment assist in the development of team skills necessary for management practice?

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Answer:

6. Please list and briefly describe all the activities which you would ideally want each group of AIM students to perform in order to complete the Economics group assignment, from beginning to end.

Answer:

7. How does the AIM Economics group assignment ensure that students fairly or equally contribute to the final product?

Answer:

8. Do you experience any difficulties with designing and assessing group assignments? If so, please explain.

Answer:

9. Is there anything in your opinion that the programme or school could do to improve the learning benefits (content and/or process) of group work?

Answer:

10. Any additional comments you want to make about group work on the AIM programme and/or other programmes at the school?

Comment:

11. Any feedback you would like to give on this questionnaire?

Feedback:

Thank you very much for your time and your willingness to participate!

Appendix 4 – Lecturer questionnaire (August 2007)

Please type in your answers using as much space as you need. I would appreciate if you could email the completed questionnaire to me (annekedu@gsb.uct.ac.za) by Friday 24 August.

1. What do you see as the purpose(s) of group work on the AIM programme?

Answer:

2. What do you see as the purpose(s) of group work on the AIM Operations Management course?

3. What is/are the learning objective(s) of the group mapping project which is part of the AIM Operations Management course?

Answer:

4. How does the group mapping project facilitate the learning of key concepts in your subject area?

Answer:

5. How does the group mapping project assist in the development of team skills necessary for management practice?

Answer:

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6. Please list and briefly describe all the activities which you would ideally want each group of AIM students to perform in order to complete the group mapping project, from beginning to end.

Answer:

7. How does the group mapping project ensure that students fairly or equally contribute to the final product?

Answer:

8. Do you experience any difficulties with designing and assessing group assignments? If so, please explain.

Answer:

9. Is there anything in your opinion that the programme or school could do to improve the learning benefits (content and/or process) of group work?

Answer:

10. Any additional comments you want to make about group work on the AIM programme and/or other programmes at the school?

11. Any feedback you would like to give on this questionnaire?

Feedback:

Thank you very much for your time and your willingness to participate!

Appendix 5 – Interview themes (September-October 2007)

Following on from the 2 student questionnaires, the purpose of the interview is to explore the student views and experiences of group work in more depth.

The interview takes the form of a general conversation between the student and the researcher around the following themes:

1. The value of group work on the programme.
2. The skills gained as a result of group work on the programme.
3. Whether group work assisted student learning and if so, how.
4. The type of group work experienced as most useful.

The interviews were conducted between 19 September and 5 October 2007.

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Appendix 6 – Group assignment brief (April 2007)

Group Assignment

Title of essay:
Competition policy in South Africa, with specific focus on anti-competitive behaviour

Recently the Competition Commission and the Tribunal have investigated a number of cases of anti-competitive conduct. Some examples include the fines imposed on car manufacturers for minimum retail price maintenance, fines on South African Airways for anti-competitive relationships with travel agencies, and the recent announcement that bread manufacturers will be taken to the Tribunal because of cartel formation and market segmentation. In your essay, focus on one of these examples. Explain the nature of this conduct and why it was regarded as anti-competitive. Make sure that you read very widely before attempting the essay, and reference your work appropriately (within the text and in the bibliography). Use at least eight references in your essay. Be careful of plagiarism (i.e. stealing other people's thoughts and ideas without giving due acknowledgement in the form of references). Good Internet-based sources include the following:
http://www.comptrib.co.za/
http://free.financialmail.co.za/
http://www.moneyweb.co.za/

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Maximum length: 1500 words

Due: 2 April 2007

Assessment weighting: 20%

Appendix 7 – Group assignment brief (August 2007)

Group Project – Restaurant Mapping

Your project is to select a restaurant of your choice and map the process from receiving the customer to payment of bill. The purpose in mapping the process is to uncover areas where greater value can be unlocked. You can choose to map the flow of information only, materials only, or both. Present your map and other findings, including recommendations in report format. The report should be approximately 1500 words, excluding your process map. In your report cover the following:

1. The restaurant selected.
2. What business it is in and your analysis of how it wins orders.
3. The map and description of the process.
4. An assessment of waste in the system.
5. Proposals for how greater value can be unlocked.

Due: 27 August 2007

Assessment weighting: 25%

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