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Using Group Work in Higher Education: A South African Case Study

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ABSTRACT Higher education in South Africa is challenged by students from different schools ranging from well-resourced schools to those that are highly impoverished. Historically, the nature and application of course content lacked integration and working in teams was a rare component of the learning and teaching process. This case study explores the effects of introducing group work to a group of first year students at a university in South Africa. Using a qualitative paradigm, the study adopts an action research approach whereby 60 participants engaged with lecturers over a 3-year cycle. The findings reveal that although students displayed positive perceptions towards group work, students still require academic support when asked to work in groups.

1. INTRODUCTION AND BACKGROUND

South Africa became a democratic country in 1994 yet the education system is still in the process of addressing the imbalances of the past. Higher education, in particular, needs to deal with students coming from different schools having unequal resources. "In the past,

syllabi were not integrated and working in teams was rarely part of the process. In fact, it was considered as cheating (Pretorius 1998). The challenge in higher education today is to bridge the gap caused by the pre democratic government and achieve transformation in learning and teaching. This challenge requires professionals from higher education to continuously reflect on their current teaching methods and implement innovative and effective ways of teaching in their curricula.

The idea for conducting this research stems from the teaching method that is currently used to lecture the subject, Business Administration I, at the Durban University of Technology. The teaching method currently employed in this particular subject is the traditional lecturing method. Students sit and listen to lectures four periods a week (the duration of each period is fifty minutes). In those four periods a week, lecturers present the material to students and students must then absorb the information as it is presented. This has been the situation year after year. However, some research indicates this may be problematic: “Various studies on attention levels during a 50 minute lecture reveal that during the first 10 minutes attention levels are high, but as the lecture proceeds, attention levels drop and continue to do so if students are not actively involved in some way” (Fry, Ketteridge & Marshall 1999).

As lecturers in the department we became interested in critically reviewing our own roles as lecturers and researchers in this particular subject. It was imperative that we came up with ways of making teaching and learning more fun, meaningful and innovative and found more effective ways of teaching. This would be achieved by constantly engaging with our methods of teaching through action research in order to improve our own practice. It is against this background that group work was piloted and evaluated as a teaching method.

RESEARCH PROBLEM

To investigate students’ responses to the introduction of group work as a teaching method in Business Administration I at the Durban University of Technology.

OBJECTIVES OF THE STUDY

The objectives of this paper are:

- To determine the perceived benefits of using group work as a teaching method.

- To investigate the perceptions of the students using group work in Business Administration I.

THEORETICAL FRAMEWORK

Good classroom practices should stem from carefully researched theories. Educators are therefore faced with the responsibility to tell the truth in their research” (Bennet et al. 1996). It is important for educators to link theory with what happens in their classrooms on a day to day basis. This study drew on theories related to Teaching and Learning in Higher Education, Active learning, Group work, Deep learning, Surface learning, as well as Experiential learning and Constructivism which the study was aiming to put into action in the Business Administration I class at the Durban University of Technology.

LITERATURE REVIEW

There are different terms which are used to describe group work; e.g. co-operative learning (although some books use this term to describe experiential learning), active learning and teamwork. According to Barnes, Ernst and Hyde (1999) “A group is more than people who happen to be doing the same thing at the same time in the same place; to be a group, people must have some connection, some way in which they come together (either literally or in their minds) with a common aim, purpose, or function. This defines the boundary of the group, separating it from the surrounding environment of which, nevertheless, it is a part”.

From the above definition it can be noted that people who “happen” to be doing the same thing are also considered as a group, for example, people standing in a queue inside the bank. However, this definition does not serve as a good indicator of group work in higher education; it will mislead lecturers into thinking that students who just happen to be doing the same thing at the same time are considered as a group. Lecturers still need to facilitate group work by giving students proper goals to work towards. When introducing group work in higher education, it should not be a matter of arranging students together, but they must be given a meaningful task to achieve. As mentioned by Van Rheede Van Oudtshoorn and Hay (2004) “A group can be described as a group of five to seven participants with a collective

goal in mind". The use of group work is becoming increasingly common in higher education. Group work allows students to pool knowledge and skills (O'Sullivan et al. 1996). These participants can either be same sex groups or mixed sex groups. Reynolds (1994) mentions that single sex groups may sometimes see each other differently as compared to mixed sex groups; therefore, people will behave differently in single sex groups as compared to mixed sex groups.

Using group work in higher education has many benefits such as developing students with good communication skills, who are critical thinkers and developing students who are able to socialise with other people. Maree and Fraser (2004) define learning as a constructive, cumulative, self-regulated, goal directed, collaborative, and individually different process of meaning construction and knowledge building. Learning involves the construction of information in the memory rather than the exact transmission of information. This is also emphasized by Jacobs, Gawe and Vakalisa (2000) in that cooperative learning is a way of teaching in which pupils work together to ensure that all members in their groups have learnt and understood the same content. Jacques (1991) states that a group exists when there is a collection of people with a collective perception, needs, shared aims, interdependence and interaction. Group members have collective perceptions, the same needs, shared aims, interaction and cohesiveness.

According to O'Sullivan et al. (1996), there is an overlap between the meanings of a team and a group. In this study, the term group will also include the notion of a team. Learning groups such as those used in a classroom, tend to be a combination of work groups and teams (Nina and Brown 2000). Members are peers working together to acquire knowledge and skills and each member contributes. Small group discussion provides the opportunity for students not just to engage in discussions regarding the subject content but also to create a social 'family' to which they can assimilate and become identified with. It could be said, therefore, that an important function of group work in higher education is to enable students to know enough about themselves and others and to enable them to work independently and yet co-operatively within a team. This depends primarily on how the educator uses group work. "Group work is a form of socialisation in which the teacher allows his pupils to work towards common objectives in groups, the intention being that they will influence each other for the good and learn both for and from each other" (Avenant 1990).

RESEARCH METHODOLOGY

This research took a form of a case study, which started as a mini project; it then became informed practice which was carried out over a period of three years. “The goal of a case study is to put in place an inquiry in which both researchers and educators can reflect upon particular instances of educational practice” (Freeboy 2003). In this instance, the case is the Business Administration I class at the Durban University of Technology, Riverside Campus. The study took the form of a two cycle action research project which started in 2010. We implemented a group work project for the first time with students registered for the subject Business Administration I in 2010. The process was evaluated at the end of the implementation of the project and recommendations were made for future implementation. Recommendations were received from students’ responses to questionnaires and from our own observations. “A case study is more than a story or description of an event or state. As in all research, evidence is collected systematically, the relationship between variables is studied and the study is methodically planned” (Bell 1999).

The project was again implemented in 2011 with another group of students but within the same subject as the previous year. Improvements were made on the areas identified the previous year.

The year 2012 provided an opportunity to look back over time and examine the findings obtained in the first and second cycle. In this particular year, we looked at the long term implications of exposing students to group work projects with particular reference to their learning.

Sampling

The sample size was:

- All 60 (sixty) students registered for the subject Business Administration I in 2010.
- All 60 (sixty) students registered for the subject Business Administration I in 2011.

- A convenience sample of 9 (nine) students (out of 40) registered for Business Administration III in 2012 (who had originally been part of the 2010 cohort). These students were invited to participate in this study and they were told that only 10 (ten) students would be interviewed. Therefore, the first ten students who indicated their interest to participate were selected.

The students who were selected to participate in the study in 2010 and those who participated in 2011 were chosen because they would have been exposed to both individual and group work in that particular year. The nine students from the original 2010 group were invited to participate in the study in 2012 because they were part of the original 2010 respondents. We wanted to assess whether their perceptions of group work had changed over the years. Our challenge was that this method of teaching had never been used at the Durban University of Technology when lecturing this subject. We wanted to explore students' reactions to group work as a teaching method.

Data Collection Methods

The methods used to collect data were:

- a) **Participant observations** during the implementation of the group work project in 2010 and again in 2011.
- b) **Questionnaires to students** after the implementation of the group work project in 2010 and again in 2011.
- c) **Focus group interview** with students who studied Business Administration I in 2010 who at that time were studying Business Administration III during 2012.

Participant Observations

We used participant observations to observe students from the first day we told them that we were going to start a group work project for the first time in Business Administration I. We

did not use any structured observation schedules for this because we wanted to put our observations on paper as they occurred, describing exactly how we felt and thought at that particular time. We were making notes during the process as we wanted to observe problems experienced by students whilst working in groups and reflect on what was happening to students at the beginning of the group work project and what was happening whilst they were working in groups. However, upon reflection, we noticed that it is difficult to observe one's own classroom because one must be a lecturer and a researcher. We had to facilitate and evaluate presentations so that at the end of the presentation we were in a position to stimulate discussions with students regarding that particular topic discussed by presenters. We also had to provide feedback on the presentation itself so that the next group to present would learn from their peers. Due to the roles that we had to fulfill in the classroom, we did not take as many notes as we intended. We got too involved in the evaluation and monitoring of the presentations and, therefore, did not concentrate on observing as we originally planned. On the contrary, if we prepared an interview schedule, we would then observe only those 'anticipated behaviours' listed on the schedule and might miss other important issues.

Questionnaires

An open ended questionnaire was administered to students involved in the first cycle (2010). Advantages of using open ended questionnaires are that they allow more freedom of response, are easier to construct and also permit a follow-up by interview (Fraenkel and Wallen 1993). This open ended questionnaire was used to obtain students' perceptions of group work after they were given a chance to work in groups. The same questionnaire was again administered to students who were involved in the second cycle (2011) after they had worked in groups; they were then asked to document their own experiences. Students enjoyed the opportunity to write down what they liked and what they did not like about a particular teaching method. Most of the time, the student's 'voice' is not taken into consideration in our teaching. As lecturers we tend to teach the way we want to teach whether students are happy with it or not.

Group Focus Interviews

We did not want to use observations and questionnaires only as a method of obtaining data. We wanted to hear students' experiences of group work from their own voices. Interviews are an important way for a researcher to check the accuracy or verify the impressions he or she has gained through observations (Fraenkel and Wallen 1993). We used a semi-structured focus group interview in 2012 to find out from students who were part of the first cycle in 2010 who were in 2012 doing their final year towards their qualification, whether their perceptions of group work had changed through the years and how being exposed to group work in first year, affected their learning in the three years that they had been at the institution. De Vos et al. (2005) state that the guided interview is ideal for obtaining comprehensive and comparable data. Focus group interviews are group interviews which are a means of better understanding how people feel or think about an issue, product or service. They are used to obtain information in a shorter period of time than in individual interviews (De Vos et al. 2005).

RESULTS AND DISCUSSION

Observations

Observations were conducted daily from the beginning of the group work process. At first we noticed that students were nervous and worried when we told them that they would be working in groups, they were not certain if they would enjoy the process since they were used to working as individuals. Students were also not certain whether they were going to be able to find the information on their own because they were so used to relying on lecturers providing all the information needed in this particular subject. Students did not have the confidence in themselves to trust that they could take charge of their own learning.

Although the classes were dominated by females, when students were dividing themselves into different groups we found that some were male only or female only groups. We did not disturb this because we wanted students to be as comfortable as possible in their groups and to enjoy the process. It is important to understand what happens when working in a group in the absence of members of the other sex (Reynolds 1994).

As the presentations started taking place, students started to feel at ease. They understood the process and were also looking forward to listening to their classmates present that particular topic in class. All groups were asked to give a presentation of a particular topic that they were researching, in order to get their classmates involved in each other's work and to achieve a broad perspective on the topic (Van der Horst and McDonald 1997). We noticed that the presentations went very well; students were interested, learning, asking questions, stimulating interesting debates and taking notes as well. They also informed some of the third year students in the department, that they were doing presentations for the first time in Business Administration I. Four third year students came to us and asked for permission to sit and listen to the presentations. This motivated us to notice that what we were implementing was interesting and fun for the students. The problems that we observed from the presentations were that some students were just reading to their classmates. They were not thoroughly prepared for the presentations. Another problem was that there was a lack of respect amongst students, for example, if their classmates asked the presenter a question, the presenter would be rude when responding to that question.

Students' perceptions of group work

Following the process of action research, two cycles of plan, act, observe and reflect were implemented. The findings in the first cycle indicated that students need to be given more support when asked to work in groups as it is sometimes difficult for them to look for information on their own. Problems identified by students included things such as the difficulty for them to meet in groups because they live at different places. Another problem experienced by the students was that they were finding it difficult to complete the evaluation form used to evaluate presentations. Although this was explained to them at the beginning of the process, they were still confused. Another major problem was that some group members were not contributing to the research that had been undertaken. As a result, some students had to do more work whilst others were not contributing. Despite these problems experienced in the first cycle, students enjoyed working in groups and we also learnt more from reflection on our action research as we had to come up with solutions to the problems identified in the first cycle.

Table 1 categorizes the students' perceptions of the benefits of working in groups as identified by students who were part of the first cycle in 2010. These categories emerged from the students' responses to the open ended questionnaire given to them at the end of the group work process. Although this was a class of 60 students, when the questionnaire was administered there were only 44 students in class (N = 44). This could be associated with the fact that the questionnaire was given to students towards the end of the term.

Table 1: Students' good experiences of group work recorded in their own words (2010)

<i>ACADEMIC</i>	<i>SOCIAL</i>	<i>PEER LEARNING</i>
Easy and interesting topics given to us because they were also part of the syllabus. (n=8)	I like the fact that we were given a chance to divide ourselves into groups. We worked hard because we were working with the people we knew. (n= 10)	Easy to find information when working with others. (n=3)
This was a good learning experience; very exciting. (n=1)	Improved good relationships between students. (n= 8)	Different people working together; you get to know your classmates well. (n=4)
We were given a chance to share ideas. (n = 5)	We all respected each other (n= 2)	
Students are more productive when working in a group. (n= 1)	At first, I was scared in my group, but I fitted in very well. (n= 1)	
	We learnt to communicate with different race groups.	

	(n= 1)	
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The second cycle worked better as we were more experienced as facilitators in facilitating the group work project. Students were excited with the method used to evaluate the presentations in the second cycle. This method was more fun and informal since all students were involved in evaluating a particular presenter; it was not a matter of choosing one member per group to evaluate presentations, as was done in the first cycle. Due to our involvement in the second cycle and due to the fact that we did not lecture second years in 2011, we did not have sufficient time to monitor students who were part of the first cycle to identify if they were better in linking the two major subjects and if they were better in linking what they have learnt in first year to what they were learning in their second year. The following table outlines the students' (N=47) good experiences that were experienced in 2011 obtained from a questionnaire given in 2011 which was similar to the one given in 2010.

Table 2: Students' good experiences of group work recorded in their own words (2011)

<i>ACADEMIC</i>	<i>SOCIAL</i>	<i>PEER LEARNING</i>
Share information, share ideas and knowledge. (n=7)	Working as a group is very interesting (n=2)	We learned to listen to each other's views. (n=1)
Assessment of presentations was fair; we got what we deserved. (n=5)	Gives us a chance to understand each other's weak and strong points. (n=3)	Everyone had to contribute and cooperate. (n=1)
I like groups of six because we could further divide ourselves into two and allocate tasks (n=2)	Brought students closer. (n=3)	Worked well together. (n=2)
It is a way to get the work	We learn to communicate with other people. (n=3)	

done faster and enjoyably. (n=2) A group presentation is the best oral presentation I have ever done. Knowing that your friends are standing next to you whilst you are presenting 'makes you not to be shy'. (n=3) Group work taught me how important it is to listen to each other, taught me time management and to be organized. (n=2) Everything in this process was really helping students a lot; especially it was easier to learn the accounting section. (n=3) We must do presentations more often; it helps you not to be shy. (n=1) This was a very good experience for me; it was my first time working in a group. (n=4)		
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It was interesting to look for information on your own without having to wait for the lecturer each time to give you information. (n=4)		
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Findings obtained from the Focus Group Interview

At this stage, we wanted to reflect on the whole process of exposing students to group work in the two cycles. The second reflection then included asking third year students who were part of the 2010 group to again reflect on their exposure to group work in the three years of their studies. This was also to identify whether these students still held the same perceptions of group work as they did in 2010. The following table outlines the students' good experiences of group work as obtained during the focus group interview which took place in October 2012. For the interview schedule, there were 9 respondents (N=9). We felt that it was not relevant to give a number to each response, as all nine responses were captured from all nine participants.

Table 3: Students' good experiences of group work in their own words (2012 focus group interview)

<i>ACADEMIC</i>	<i>SOCIAL</i>	<i>PEER LEARNING</i>
The idea of choosing the people to work with is great. We were given responsibility for our own learning.	Groups worked as teams. Improved communication between classmates	You get help from other students when you do not understand the topic.

Given a chance to be able make decisions.		
You get more information when you look for it yourself unlike taking only what your lecturer tells you.		
You get a better understanding of that topic when you struggle to get information.		
We get to share ideas and information.		
You get experience of being a leader		

RECOMMENDATIONS

As educators we need to be careful when we make claims regarding students' academic performance. This needs to be researched at a deeper level. It also raises a question of whether group work is more effective for certain types of students and, if so, what types of students?

We had to reflect on what needed to be changed and make the necessary adjustments for re-implementation in the second cycle. It is recommended that lecturers planning to use group work use the action research principle of implementing, evaluating, reflecting and re-implementing until this type of teaching and learning works for all parties. The responsibility of making group work effective cannot be placed in the hands of the lecturers only. Students

must also have a “say” about what they like and what they do not like. Within reason, we must be able to explain to them why we are doing what we are doing in the classroom. From the observations, it was noted that students become uncomfortable at the beginning with the concept of working in groups. With careful motivation and guidance, they become more relaxed, start to enjoy the process and participate more in the discussions in class. When implementing a group work project, it is important to explain to students the whole process involved so that they can also know what is expected of them. It is also important to have systems in place to monitor the process. A checklist will serve as a valuable tool for students to keep track of what is expected from them and what is still outstanding.

It was evident that students benefit considerably from working in groups. They develop a range of skills that they will need in the business environment in order to be good South African citizens (Becker 2005). We need South African citizens who are able to work together, respect each other and acknowledge the diversity in this country. It was interesting to notice that the benefits experienced by students with regards to group work were also benefits noted in the literature. In future, it will be interesting to look at the group membership in more detail and determine which factors contribute to the group performance taking into consideration things like gender, age, and previous friendships.

There were also long term implications of group work noted in this study. Students were more confident in doing their third year presentations due to training they had received in their first year. The other long term implication as mentioned by the participants in the focus group interview was that students stayed friends with those students that had been in their groups during their first year of study. This means that when group work is introduced earlier, as soon as students enter the tertiary environment, it assists with social cohesion in their academic years and beyond. The action research process is an ongoing process. The results of this study also corroborate with similar studies undertaken by Fearon, McLaughlin and Eng (2012) and Popov et al (2012). We are interested in tracking these students in industry to see whether having exposure to group work prepared them well for future employment.

REFERENCES

- Avenant P 1990. *Guidelines for Successful Teaching*. 2nd Edition. Durban: Butterworth.
- Barnes B, Ernst S, Hyde K 1999. *An Introduction to Group Work. A Group Analytic Perspective*. London: Palgrave.
- Becker L (ed.) 2005. *Working with Groups*. South Africa: Oxford.
- Bell J 1999. *Doing your Research Project: A Guide for First Time Researchers in Education and Social Science*. 3rd Edition. Buckingham : Open University Press.
- Bennett C, Peck F, Higgins C 1996. *Researching into Teaching Methods in Colleges and Universities*. London: Kogan Page.
- De Vos AS, Strydom H, Fouché CB, Delport CSL 2005. *Research at Grass Roots. For the Social Sciences and Human Service Professions*. 3rd Edition. Pretoria : Van Schaik Publishers.
- Fearon C, McLaughlin H, Eng TY 2012. Using student group work in higher education to emulate professional communities of practice. *Education & Training*, 54(2), 114-125.
- Fraenkel RJ, Wallen EN 1993. *How To Design and Evaluate Research in Education*. Second Edition. United States of America: McGraw-Hill Inc.
- Freeboy P 2003. *Qualitative Research in Education. Interaction and Practice*. London: SAGE Publications.
- Fry H, Ketteridge S, Marshall S 1997. *A handbook for Teaching and Learning in Higher Education. Enhancing Academic Practice*. London: Kogan.
- Jacobs M, Gawe N, Vakalisa N 2000. *Teaching – Learning Dynamics. A Participative Approach for OBE*. 2nd Edition. Johannesburg: Heinemann.
- Jacques D 1991. *Learning in Groups*. London: Croom Helm and Kogan Page.
- Nina W, Brown D 2000. *Creating High Performance Classroom Groups*. New York and London: Falmer Press.
- Maree JG, Fraser WJ 2004. *Outcomes Based Assessment*. Sandown: Heinemann.
- O’Sullivan T, Rice J, Rogerson S, Saunders C 1996. *Successful Groupwork. Transferable and Learning Skills*. London: Kogan Page.
- Popov V, Brinkman D, Biemans HJA, Mulder M, Kuznetsov A, Noroozi O 2012. Multicultural student group work in higher education: An explorative case study on challenges as perceived by students. *International Journal of Intercultural Relations*, 36, 302-317.

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Pretorius F 1998. *Outcomes Based Education in South Africa*. Randburg: Hodder and Stoughton.

Reynolds M 1994. *Group Work in Education and Training. Ideas in Practice*. London: Kogan Page.

Van der Horst H, McDonald R 1997. *Outcomes Based Education – A Teachers Manual*. Pretoria: Kagiso Publishers.

Van Rheede Van Oudtshoorn GP, Hay D 2004. Group Work in Higher Education: A Mismanaged Evil or a Potential Good? *South African Journal of Higher Education*, 119(5). 912-930.