Working with diverse students: Can lessons learnt in South Africa be applicable in Pan-Pacific region?

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Diversity is often seen as a negative aspect in teaching and learning. It can, however, offer opportunities for growth on the part of all students as they learn to develop the social, cognitive and communication skills necessary to work in a multicultural environment. The issue of diversity has become prevalent in South Africa in the last few years. It has been shown that diversity needs to be addressed by helping the lecturers understand the issues and modify their curricula as well as by helping the students. This paper shows one lecturers research and journey in working diverse students in group work and asks the question if these lessons can be applicable in the Pan-Pacific region.

1. Introduction

Students need to learn to work in a multicultural workforce and their classroom experiences can help them to develop the social, cognitive and communication skills necessary to do this [Lynn, 1998]. Diversity among students can help to facilitate this learning experience. Diversity is, however, often seen as a problem rather than an opportunity.

This paper is written from the perspective of the author, telling a story of her research into literature and her experience attempting to apply some of this research in the Faculty of Computer Studies at the Port Elizabeth Technikon, where she was working at the time. The Port Elizabeth Technikon is like a technical university offering degrees up to doctoral level. The Technikon was situated in the Eastern Cape and the students spoke mostly English, Xhosa or Afrikaans. The Xhosa students are indigenous Africans.

2. Historical Perspective

During the early apartheid years, higher education was divided in South Africa. The different ethnic students attended separate universities. Most higher-education institutions in South Africa opened their doors to all races during the 1980s, with universities like Cape Town and Witwatersrand leading the way in the 1970s. South Africa became a new democratic society with a new constitution in 1994. The preamble to the South African constitution states, "...*South Africa belongs to all who live in it, united in our diversity.*" South Africa has a rich multicultural society. This is shown by the country's eleven official languages.

South African secondary schools offer very diverse education. Classes are sometimes very large, with up to 70 students per teacher [Scott, 1995]. Students are often taught by rote learning in a very authoritarian atmosphere. They are not taught to engage in free enquiry and discussion [Ruth, 1996]. These students see it as the staff members' role to provide them with answers to questions and to make sure that they pass [Sanders, 1992]. While these things are changing, the problems still exist in many schools.

English is used in most tertiary institutions, but English is often the students' second, or even third language. Students thus often had difficulty expressing themselves.

Unfortunately, many of the new students coming into higher education were ill prepared for the experience of universities and the institutions were ill prepared to handle the students. In the early years, the higher-education institutions focussed on helping the students cope with university life. Many Academic Support Programmes were set up to help students achieve the skills that they needed to cope with academia [Starfield, 1996]. Most of the programmes had components to help students to improve their English skills as English was the medium of instruction and to improve their study skills. These programmes were reasonably successful.

The Port Elizabeth Technikon, Faculty of Computer Studies, introduced a bridging programme in 1992. Students did two of their first year subjects in the bridging programme, but were given additional time in the laboratories and classroom for these subjects. They were also given additional subjects in "Commercial Calculations", "English" and "Life Skills". The life skills included components of study skills, time management, as well as handling their finances, working in groups, etc. This seemed to work reasonably well, with students who came through the bridging programme doing markedly better than those who came directly into the course.

It is against this background that the author started to investigate the experiences of the diverse students in the Faculty of Computer Studies at the Port Elizabeth Technikon in 1998 in order to improve her own teaching of diverse students.

3.   The diversity literature

While ill-prepared students are a problem, the diversity of students should not be seen as a problem but rather as an opportunity according to Goduka[1996b]. She states that the problem occurs when we try to change our diverse student population to all be the same. Academic Support Programmes tend to foster on changing the student. Goduka [1996b] suggests that diversity issues should be integrated into the curriculum and learning environments allowing each student to be different and understanding those differences. The institution, the lecturer, the learning environments and the curriculum should all be changed.

Wood [1998] says that development activities need to take place within the academic departments rather than in isolation. It has been found that students have difficulty transferring the knowledge learnt from one context to another. This puts an added burden on the lecturer who may need to give additional material or create case studies that are more appropriate to their diverse student body.

There is some debate in the literature as to whether students should be given explicit instruction about one another's culture or not. Some authors [Bodibe, 1997; Koger, 1995] feel that students should be given such classes. Others like Goduka [1996a] and Miller and Harrington [1990] argue that one should avoid a "tourist" view of another's culture as this makes students more aware of in- and out-group activities.

The Xhosas use the concept of "*ubuntu*" to describe humanness and togetherness. This ethos is based on collectivism and is indicative of the philosophical thought of Africans who work well in collective, pluralistic processes rather than the more individualist, one-dimensional processes of the Western cultures. This "ubuntu" philosophy would tend to suggest that

group work and co-operative learning methods would be methods that the African students would enjoy as learning methods. Co-operative learning methods have been shown to promote positive relationships between diverse student groups as they work together towards a common goal [Johnson & Johnson, 1985]. In co-operative learning individual differences are exploited to promote learning. Contact theory promotes diverse people working together. The theory maintains that contact between different groups can decrease prejudice. As people realise their similarities with others and discover their misconceptions caused by stereotyping, they will accept and work more effectively with people who are different from themselves [Bitzer & Venter, 1996].

Lecturers should try to use examples, analogies and materials from diverse students experiences in order to help them to connect with their prior understandings [Friederick, 1995]. Moahloli and Phooko [1998] suggest that this implies that students should try to contextualise new information in terms of the different students' real-life experiences. Another problem that lecturers have in the multi-language classroom is that they do not learn the names of the students and cannot pronounce those names [Bitzer & Venter, 1996]. This means that the students do not feel at home in the classroom.

The rest of the paper will describe research done on working in groups with diverse students.

4. Group work with diverse students

Group work can be used to help integrate students within the classroom. When students are asked to form their own groups, they invariably will choose groups within their own ethnic group. This allows them to use their first language within the group. During 1999 an effort was made to integrate students by placing them in heterogeneous groups with respect to academic ability, language and gender. This had limited success. The following sections describe the results of research done over the period 1999 to 2000 as the students worked in Joint Application Design (JAD) groups in the classroom. JAD groups are used in Information Systems to design systems for people from different parts of an organisation.

4.1   Group work during 1999

There were 112 students in the class in 1999 and 120 in 2000. As one can see from Table 1, the female students and indigenous African students (who speak Xhosa) were in the minority in the classroom. English was the predominant language of the group and was the only language everyone understood.

What is your first language?			What gender are you?		
	1999	2000		1999	2000
English	57,5%	44,4%	Male	69,0%	66,7%
Afrikaans	26,4%	30,8%	Female	31,0%	33,3%
Xhosa	13,8%	21,4%			
Other	2,3%	3,4%			

Table 1: Student composition during 1999 and 2000

The study considered a number of questions, four of which are considered to be relevant to understanding the students' feelings of acceptance and participation within the groups and a further two which show the students' perception of their learning of the group skills. These questions including the open-ended ones are shown in Figure 1. The name in brackets indicates what they have been called in the Table 2.

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Figure 1: Relevant questions from questionnaire

The two biggest problems that were evident during 1999 were that some students did not participate and that others tended to dominate the sessions. Further analysis and the observations of an independent observer led us to believe that some of these problems were related to gender, language and cultural diversity among the students. The qualitative results have not been shown here.

In the qualitative part of the 1999 study, for example, there were eleven students who made the comment that they tried to participate but the others did not listen to them. Of these eight were Xhosa speaking, one was Afrikaans and two were English. The observer who was in the classroom had also noted that the Xhosa students seemed shy about participating in the groups. One of the groups that she noticed this phenomenon was in a group that had a Xhosa-speaking student who was a very high achiever.   Despite this, the students' did not seek his input nor did the student volunteer information.

Another student commented as follows: "Being blonde and female, I was treated as the secretary by our 'superior' male members." The observer had noticed the opposite problem in one of the groups where there were three dominant females who tended to ignore the male members of their group. The problem was that some of the students tended to dominate the sessions and others were content to sit back and not participate.

In order to test if the problems were due to diversity rather than an inherent reticence on the part of Xhosa-speakers to participate in group work, the methods were then used at the Border Technikon where the student population is predominantly Xhosa-speaking. None of the problems experienced in Port Elizabeth were experienced there and the students reported that

they enjoyed the experience. The data and detail for this is not given in this paper but can be found in Thomas and de Villiers [2000].

The problem thus was how to make the minority students in the class feel more comfortable working in groups. The following section describes some of the suggestions made by the literature and how these suggestions were built into the JAD sessions.

		ENJOY	SAY	CONTR	ACC		CONF	INTACT
1999	Always	25,2%	40,7%	44,7%	71%	Knew already	18,6%	26,7%
	Mostly	64,4%	51,2%	48,2%	22,1%	A lot	48,8%	36,0%
	Seldom	9,2%	8,1%	7,1%	5,8%	A little	26,7%	31,4%
	Never	1,1%	0,0%	0,0%	1,2%	Nothing	5,8%	5,8%
2000	Always	26,5%	52,1%	49,5%	83,5%	Knew already	21,4%	20,0%
	Mostly	65%	44,4%	47,0%	16,5%	A lot	58,1%	49,6%
	Seldom	8,5%	2,6%	3,5%	0,0%	A little	19,7%	27,8%
	Never	0,0%	0,9%	0,0%	0,0%	Nothing	2,6%	2,6%

Table 2: Comparison of group experiences 1999 and 2000

Table 2 gives an indication of the percentage of students in each year who gave the answers indicated.   The discussion that follows will use the percentages for 2000 and will indicate how these differed from 1999 where appropriate. A discussion is also made of the students comments made after each question as indicated in Figure 1.

4.2 Modifications to the learning environment for catering for diversity

One of the problems found was that some students tend to be passive and did not participate, whilst others are aggressive and try to dominate the session. It was decided to give the students some insight into what it means to be assertive and techniques that they can use to improve their assertiveness.   An assertive person was said to be someone who has respect for themselves as well as for others. The assertiveness training was carried out by the Student Counselling Department at the Port Elizabeth Technikon before the JAD sessions were done.

No specific instruction on different cultures was given.   The idea of respecting one another's viewpoint and listening with empathy to a speaker was emphasized throughout the course, however.

The exercises had been about Business', Schools, Restaurants, Health Clubs, etc. Except for the schools, most of the Xhosa-speaking students would not have had experiences with these types of organisations. This was changed to also include scenarios that they would have experience of.

The students, as well as the lecturer, were told to make sure that they learnt the names of the members of their groups and how to pronounce them. Nametags were given to the students

for the first session to help them with this. This is a common occurrence in JAD sessions in industry so it was easy to motivate to the students.

The lecturer once again put the students into heterogeneous groups. Although there is some literature to suggest that single language groups are more effective, there is some debate on the issue. One of the aims was to get the students to work effectively with people who were different from themselves so single language groups were inappropriate. It was decided, however, to take the advice of Rosser [1998] who suggests that minority students should not be placed on their own in a group. She suggests making sure that there are at least two people of each minority in a group even if some groups then have no minority students. This was done and, although the groups were as heterogeneous as possible, no group had only one Xhosa, English or Afrikaans speaker or one female, even if this meant that some groups had no females or Xhosa speakers in their group.

4.3 Results of the research

If we compare the composition of the students between 1999 and 2000 (See Table 1), one finds that the percentage of African, Xhosa-speaking students had increased quite a lot although they were still a minority. Females remained only one third of the students.

Question 8
In 2000 there were 26,5% of the students who always enjoyed the JAD sessions. Another 65% enjoyed it most of the time, giving a total of 91,5%. There were 8,5% of the students who seldom enjoyed the sessions. These values are similar to those achieved in 1999.

The students mostly enjoyed hearing other people's ideas, working as a team and having the opportunity to share their ideas, interact with other people and working together to achieve the goal. Other factors mentioned were the friendliness, the debate with others and the way in which the JAD sessions improved their understanding. Some of the group members made interesting comments. One said that they enjoyed "when we were all patient with one another and accepted each other as one." Another Afrikaans-speaking student said that they enjoyed "working with different races, people with different backgrounds. I learnt a lot about the way people think and about them."

The main negative comments were about people who did not contribute, closely followed by those who took over and dominated the group and people who had private conversations. In the previous year, there were ten people who had commented that people did not take their ideas into consideration of whom eight were Xhosa-speaking. The number of students experiencing this problem in 2000 went down to 4, and of those 1 was English, 1 was Afrikaans and 2 were Xhosa.

Question 9
Most of the students felt that they were always (52,1%) able to have their say or that they were mostly (44,4%) able to have their say. Only 2,6% felt that they were seldom able to have their say with 0,9% feeling that they were never able to have their say. There was a distinct improvement in this from 1999 as shown in Table 4. The people who felt that they were always able to have their say went up from 40,7% to 52,1%. The people who felt like they seldom or never had their say, went down from 8,1% in the second cycle to a 3,5% combined value in the fourth cycle.

The students showed in the open-ended part of the question that they felt that everyone was able to have his or her opinions taken into consideration and that the facilitators tried to accommodate everyone and give them a chance to speak if they wanted to. Some of the facilitators still had difficulties, however. Some of those mentioned were difficulties in that they only listened to some of the people, were unable to control the group and allowed some to dominate. There were no students who mentioned that their ideas were ignored, although one Xhosa-speaking student did mention that "because my group members were so active, sometimes you just feel to hold back until the facilitator gives you a chance."

Question 10
Almost all the students (96,5%) felt that they were always (49,5%) or most of the time (47%) able to contribute to the group. Only 3,5% felt that they were seldom able to contribute. There was a rise of 4,8% from the previous year in those who felt that they were always able to contribute. Those who seldom felt that they were able to contribute went down from 7,1% in 1999 to 3,5% in 2000.

Quite a lot of the students felt that people listened to their ideas and that these ideas were often used by their groups. Others said that they spoke when they thought it was necessary. The comments were generally positive. One of the brighter students said "No offence to the rest of the group, but sometimes I know I'm right. Even after explaining, the decision is made and it is the wrong one."

Question 12
It was encouraging to note the students' responses to how they felt about being accepted in the group. There were 83,5% who felt that they were always accepted. This increased from 71% in 1999. The remaining 16,5% felt that they were accepted most of the time. None of the students felt that they were seldom or never accepted. In 1999 these figures had been 5,8% for seldom and 1,2% for never. It would seem that the techniques implemented in 2000 for dealing with diversity were particularly good for letting the students feel accepted.

This is also shown in the open-ended question results where students mentioned that the atmosphere was friendly and that people listened to them and treated them with respect. It is interesting to note that there were no negative comments mentioned by more than one person. Some of the negative comments made by individuals were : "Sometimes it felt like they knew that all your contributions meant nothing at all." Another said that some people are narrow-minded about taking suggestions. Some of the interesting comments on the positive side were: "They accepted me just as I am, did not look for faults or anything.", "Nobody was marginalised and everyone spoke and joked about everything.", If I did not understand, they would explain to me.", and "The group was cool in that every idea was important and used to come to an answer.". There were hardly any negative comments and nobody felt that they seldom or never were accepted in the group.

Question 16
There were 21,4% who felt that they were already confident about how to act in a group. Those who felt that they learnt a lot amounted to 58,1% with 19,7% feeling that they had learnt a little and 0,9% (1 student) that they had learnt nothing. The percentage of the students who felt that they had learnt a lot about how to act in a group increased by approximately 10% from 1999 to 2000. The idea of acting assertively and having respect for both themselves and their fellow students was stressed more during 2000 than in previous years.   There were seven students who commented that they felt part of the group. No

students had said this in previous years. Perhaps the ideas used for helping with diversity helped the students to feel more comfortable.

The students' open-ended answers were similar to the previous year although the idea of feeling part of the group was more prominent in 2000. Students said they felt less intimidated and that although they were shy at first, they now felt more confident. The idea of respect came through in the answers of some of the students. One said "A lot of it deals with respect for others and teamwork.". One student who was obviously confident in their own abilities said: "I learnt to listen to other people and not always consider what I'm saying right and I learnt to change my mind when their was a need for that." Another less confident student said: "You realize that what you think isn't always wrong but is sometimes right." It was encouraging to have someone say "It made me believe in myself always." Group work is important for IT professionals so it was good to have a student comment: "I were not a person for working in groups. I hated it and now I am able to do so." The answers to the question were particularly encouraging. The only negative comments were neutral comments that came from the three students who felt that they were still not confident.

Question 17
There were 49,6% who felt that they had learnt a lot about interacting with others. Another 27,8% felt that they had learnt a little with 20% feeling that they already knew how to interact and 2,6% feeling that they had not learnt anything. Comparing this to the previous year, one once again sees that there was an increase in this area (although it was not statistically significant). Those who felt that they had learnt a lot went from 36% in 1999 to 49,6% in 2000. These increases for the previous question and this one had not really been expected but it would seem that the techniques that helped the students to feel more comfortable working in their groups, also made them feel as if they had learnt more.

Students commented that they learnt to speak freely in front of people. Others said that they met new people and learnt to interact with them. Some mentioned that it taught them to listen to others. It is interesting to note that of the 32 students (27,8%) who said that they had only learnt a little, 11 mentioned that it was because they already knew how to interact with others.

The students' comments were generally positive and there were some interesting comments made by individuals: "Once I started talking it was much better and it helped me feel confident.", "I usually like to walk alone but during the group sessions I adjusted and it was not so bad.", "I have learnt to be assertive and to question things that I am unsure of. I shall know how to approach a 'quiet' person". The only two somewhat negative comments, from students who said that it did not help them at all, were: "If a person does not know how to speak his mind by now they need a psychiatrist not a JAD session." and "Interaction with people comes with everyday social behaviour and cannot be learnt quickly".

A number of the students mentioned how it helped them to have to interact with people of different races and cultures: "It helped me understand how to interact with people of different races and cultures.", "I was able to interact with different people in a different language", "It removed my shyness especially to different cultural groups and gender" and "It was good to work with the opposite sex, different races and coming into contact with different backgrounds." The first two comments were made by English students and the last two by Xhosa-speaking students. Although a lot of group work is done at Port Elizabeth Technikon, generally the students are allowed to choose their own groups and they choose within their

own language and cultural groups. The students seem to appreciate the opportunity to work with other groups.

5. CONCLUSION

Higher Educational institutions are faced with the task of integrating students from diverse backgrounds and helping them all to learn. This paper cannot hope to be an exhaustive study on how to handle diversity but gives some ideas that were tested in an Information Systems class at the Port Elizabeth Technikon.

At the beginning of this article, the question was posed as to whether the lessons learnt in South African could be applicable in Australia.   It would be wrong to say that Australia has the same problems. The ethnic groups and the backgrounds of the students coming into tertiary education are very different from those in South Africa.   The principles, however, are the same. In order to facilitate working with diverse students higher-educational institutions should not focus all their efforts on the students. This would tend to imply that the focus is on making all the students the same.   The students, the lecturers and the curriculum all need to be addressed in working with diverse students.

Lecturers should be made aware of the problems that English second language students can experience. They should make sure that they learn to pronounce their students names correctly and should use examples and case studies that suite the diverse student population. Group activities with heterogeneous groups should be used to give opportunities for all students to work with people who are different from them. Groups should be heterogeneous but minorities should not be made to feel alone.   Assertiveness training might need to be given for students who tend to dominate or are passive in group situations.

Dealing with diversity offers many challenges for higher education educators, but also offers opportunities for helping students to develop their interpersonal skills and work with people who are different from themselves.

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