

Addressing problems in integrated schools: student teachers' perceptions regarding viable solutions for learners' academic problems

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Classroom teaching is influenced by teachers' perceptions of learner diversity. The current integration of South African schools calls for teachers to actively take stock of their perceptions of learners from diverse backgrounds and develop the attitudes, knowledge, and skills that will equip them to teach effectively in culturally diverse classrooms. Such development should be an important objective of teacher training programmes. Against this background the School of Education, University of South Africa, joined a ten-nation international research project, organised by the International Bureau of Education (IBE) of UNESCO, with a view to acquiring information about student teachers' perceptions of learners from diverse backgrounds. A section of the research done in South Africa is outlined, where the focus was particularly on the solutions student teachers envisage for dealing with learners' educational difficulties in a multicultural classroom. Implications for the design of teacher training programmes is addressed.

Introduction

Throughout the country's history, segregation has been a constant feature of South African society and therefore of its education (Van Zyl 2002:6). The policy of segregation or apartheid contributed to the formation of certain perceptions that militated against the establishment of a tolerant society and caused widespread cultural misunderstanding and conflict. National research and reports dealing with intolerance and racism in South Africa indicate that these issues have received some attention. Of particular importance is the South African Human Rights Commission's (SAHRC) report on racism, which includes details of incidents of racism, the prevalence of racism, and reasons for the absence of racial interaction in many schools (Vally & Dalamba, 1999). According to Carrim (1998:13), cultural and racial prejudice is endemic in schools. Research on how racial prejudice takes root in children's minds has shown that by the age of five most children express prejudice towards racial groups other than their own (Gutman & Hickson, in Van Wyk, 2001:6). Furthermore, Du Toit (1995:212-213) takes the view that the opening of schools to all races

... does not automatically ensure mutual understanding and acceptance between educators and learners and amongst learners. Therefore desegregation *per se* does not lead to predictable and meaningful changes in the attitudes of groups to each other and can, in actual fact, lead to the heightening of tension and prejudices.

The development of positive attitudes among teachers towards learners from different ethnic, racial, linguistic and religious groups is a priority in teacher education worldwide (Gagliardi, 1994:6). Therefore, an important aim of teacher education programmes is to encourage and help prospective teachers to change negative feelings, which they may have toward learners from diverse groups, and to develop positive dispositions instead (UNESCO, 2001:1-2). Against this background, an international research project to investigate prospective teachers' perceptions about the learning capacity of learners from different groups has been conducted in eleven countries, including South Africa. This article describes the research design and presents the findings of a section of the research done over a continuous period of two years in South Africa.

Factors that contribute to the forming of perceptions in South Africa

Pre-democratic influences

In South Africa a host of legislative mechanisms enforced racial segregation in all walks of life for more than three centuries. These mechanisms became dominant in the forming of perceptions in South Africa. Segregated education was never equal education because, in contrast to black education, education for whites was compulsory and free and better endowed with state funding. Black education suffered from the consequences of insufficient provision of physical education facilities, shortage of schools, lack of running water, toilet facilities and elec-

tricity, insufficient funds, a high dropout rate, curriculum deficiencies and inadequate teacher training for black education, as well as overworked, underpaid and unmotivated teachers (Swanepoel & Boooyse, 2003:96). This situation became a major focus of public attention when black youths began to demonstrate their dissatisfaction with segregated education through countrywide uprisings in the 1970s. The demonstrations were attended by unparalleled lawlessness (Fraser, Meier, Potter, Sekgobela & Poore, 1996).

The advent of youth-based political resistance in the mid-1970s heralded a new explosive era in South African education and had a profound impact on various aspects of community life in black townships. Both school and home life were directly affected by the huge body of young political activists (Mokwena, 1992:34). The school became a breeding ground for political unrest. Children became used to power and control, and refused to yield to the authority of parents, teachers and other adults. The vast majority of the black youth became actively involved in the political struggle. Years of deprivation, segregation and violence effectively destroyed any hope of establishing a viable culture of learning among African learners (Van Zyl, 2002). Swanepoel and Boooyse (2003:95) consider that in view of the above situation the groups concerned were bound to have drastically divergent views of each other.

Influences under the democratic government installed in 1994

In 1994 the new democratic government brought with it a desegregated national education system that resulted in an influx of large numbers of black learners into the formerly white schools and none of them could be refused admission on the grounds of their inferior basic education. Some of the black learners who were accepted into formerly white schools found it very difficult to adjust to the new educational environment because they lacked the language skills and required background knowledge to deal with the curriculum content and medium of instruction (Afrikaans and/or English) used in formerly white schools. In fact, in some instances an interpreter is needed to explain to black learners in their mother tongue (indigenous African language) what the teacher is saying (W Roscoe, pers. comm.). These learners often project an image of incompetence, illiteracy and ignorance, which is mistakenly regarded by some as indicative of inherent failings but is in fact the result of an historically inferior education system (Fraser, 1995:43). 'Equal opportunities' made little impact on the legacy of disadvantage inherited from apartheid education. In fact the changes that happened had little effect on the intense structural inequalities that conditioned educational outcomes (Badat, 1998:11).

The stereotyped images of incompetence, illiteracy and ignorance were often used by parents as reasons to continue their claim of segregation in former Model C schools. In the new desegregated education system these perceptions were supported by manifestations of cultural differences; an unconditional pass system based on new criteria; a perceived lack of discipline and learning culture of black learners;

educators who were often not motivated because they lacked multi-cultural teaching skills; the africanisation of learning content; and overcrowding in classrooms. Such experiences contribute to the discontent in white communities regarding the dropping of standards in schools (Rademeyer, 2004:11; Meier, 1998:14).

The restructuring of education also contributed to the forming of negative perceptions in various communities. Some of the points of dispute are as follows:

- The drastic reduction of teaching posts (De Vries, 2004:21) has had a twofold result. Firstly, the learner-teacher ratio has increased (Pretorius, 1995:1). The ratio of 1:35 for primary schools and 1:40 for secondary schools is unacceptable to many white parents who believe that it will compromise teaching standards and teacher enthusiasm (Swanepoel & Booyse, 2003:96). Secondly, a redeployment of teachers is unavoidable as a means to address the shortage of teachers experienced at former black schools. White teachers are often reluctant to be placed at such schools in black townships where crime and violence are rife in many of the townships (Meier, 1996:169).
- Findings of a research project undertaken by Swanepoel and Booyse (2003:94-100) reporting on the experiences of educational change imposed by a heterogeneous group of teachers suggest that teachers are experiencing a heavier workload due to desegregation. Remarks such as "We are forced to change our teaching methods ... we haven't been taught how to deal with multi-culturalism or multi-lingualism in the classroom". "You are basically forced into a particular teaching method ... very elementary teaching methods (mainly because) the black kids did not have the background knowledge required." Some remarks from African teachers indicate their frustration: "... new methods do not work so well within our cultural context, especially where it has been inherited from the white culture".

Racial tension in South Africa is not confined to education. Although the Markinor/SABC Opinion 2004 poll regarding race relations in South Africa reports that 60% of South Africans are of the opinion that relations among various population groups are improving (Markinor Opinion 2004 Racial Relations, 2004), many sectors at grassroots level project a different view. In society at large, whites are being labelled as racists (Ndlangisa, Msomi & Rickard, 2005:1; ANC Today, 2004). On the other hand, whites feel that the policy of affirmative action is destroying their career prospects (Franci, 2003:183).

These are just a few of the factors that further entrench and exaggerate already deep-rooted and radical stereotypes and perceptions held by South Africans, and therefore also by student teachers.

Responses to educational change and desegregation

In response to the numerous post-1994 policies and legislative enactments that mandated desegregation in South African schools, different institutions are responding to the diversity in the learner population in varied ways. However, research (e.g. Pillay, 2004; Carrim & Soudien, 1999; Vally & Dalamba, 1999; Jansen, 1998; Goduka, 1998) suggests that most attempts at providing equitable, quality education for learners with diverse backgrounds, interests and abilities are not succeeding. Embracing diversity does not merely imply desegregating schools to include various cultures, or adding optional extras to the school curriculum. Schools' responses to diversity have been analysed in research studies across the country, and the results show that attempts to respond to changes are inadequate as a means to cope with diversity.

In the first place most schools adopt an assimilationist approach. Learners who are exposed to this approach are expected to adapt to the existing ethos of the school and to curricula that have been developed for a different learner population. In her research on teaching and learning in two desegregated South African high schools, Van Heerden (1998:110) concluded that the process of desegregation in these schools is primarily a case of assimilating black learners into the school and its culture, with the result that the *status quo* has been kept

intact. The 'colour blind' approach to the curriculum (Jansen, 1998: 103) is another way in which schools continue to maintain the *status quo* (former segregationist bias). Educators claim not to see, and they studiously ignore, race or colour in their dealings with learner diversity. According to research reports on this approach, educators who apply it often try to suppress and gloss over their prejudice against learners from racial groups other than their own, by professing not to see colour (Moletsane, 1999:43). Furthermore, what is implied in these colour-blind practices is the belief that the newcomers to the school come from educationally and culturally inferior backgrounds and that changing the curriculum to meet their needs amounts to lowering the otherwise high standards in these former white schools. A third approach that is popular in South African schools is what Banks (1989) calls the contributionist approach to teaching learners from cultures or groups other than the formerly dominant group of the school's population. According to Van Heerden (1998:110), to have a 'cultural day' at school, for example, a Zulu or Indian day, or to string together medleys of verses of songs in different languages in an effort by schools to signal acceptance of 'new' learners is a superficial 'add on' gesture that does little to bring about real unity in diversity.

According to Fante (2000:35), multicultural education entails a teaching and learning approach that can lead to the ideal situation aspired to by the present education system, but the advantages of multicultural education remain debatable. As noted by Squelch (1993a), scholars criticise multicultural education for its inability to bring about significant structural reform and address deep-seated racism in society. Moreover, they argue that multicultural education tends to focus on the weak assumption that cultural understanding will lead to greater tolerance and racial harmony. Thus multicultural education fails to deal with the real reasons for ethnic and cultural groups being oppressed and victimised. It is also taken to task for regarding racism as an outcome of individual ignorance and prejudice rather than focusing on inherent structural factors in society. This debate is also reflected among educationists in South Africa, where some scholars are reluctant to identify themselves completely with the concept of multicultural education.

Cross and Mkwanzazi-Twala (1998:28-30) propose an 'education for national reconciliation' model and argue that the problem with the multicultural education model is that it does very little to address the existing social and cultural imbalances in South Africa. They are of the opinion that education has entrenched and propagated ethnic and racial consciousness, thus increasing tensions and divisions in South African society. Education effectively was instrumental in disempowering the masses and in preventing them from taking control of their own lives and destinies. "South African multiculturalism was based on a typically racist and oppressive value system which stressed racism, sexism, tribalism, individualism, elitism and the like" (Cross & Mkwanzazi-Twala, 1998:28). They propose a model that redresses this legacy and that will reconcile unity and diversity as well as amend the existing imbalances in our society, which may hinder the process of nation building.

In research on the desegregated South African schools, Carrim (1998:311) found that learners experienced assimilation, which is a denial of differences between people, rather than an authentic multicultural approach. Furthermore, the minimal type of multiculturalism introduced by educators in schools was, at best, stereotypical and, at worst, caricatured. The effect of this is to project differences among people in negative ways which do not combat racist practices, "leaving one with the inescapable conclusion that such forms of multiculturalism are reconstructed forms of racism" (Carrim, 1998:313). Carrim argues for a critical anti-racist approach to education that acknowledges and incorporates the notion of difference between people. In accordance with Carrim, Soudien (1994:290-291) found that South African educators try to avoid the issue of race and shield their learners from real controversy. Neither the learners nor the educators "are perceived to have the power to confront the edifice of social division and inequality. Everyone in the process is left unable to explore his or

her locatedness in the social practices of division, oppression, and exploitation" (Soudien, 1994:292). Soudien is of the opinion that this trend may lead to a multiculturalism of neutrality.

Morrow (1998:232) argues that South Africa needs a multicultural education with a specific South African definition. It is also necessary for a society to mature sufficiently in the post-apartheid period to embrace such a definition. In his argument, Morrow takes several aspects of multicultural education and examines South African society in relation to these. Aspects such as modernisation, the politics of difference, liberalism, cultural relativism, and similarities and differences between apartheid and multiculturalism are dissected. For example, in his argument headed "the politics of difference", he states that the South African society, which exhibits social diversity in the starkest possible terms, should "recognise difference" if it wants to reflect global empathy with the "recognition of social diversity". But according to Morrow (1998:242)

... the politics of difference is a confrontational style of politics which presupposes an established political order and a shared identity ... the politics of difference is a product of societies which have well-established procedures for resolving conflicts without violence, ... low levels of poverty and social peace and lack of civil disorder.

He is of the opinion that South African society has not yet achieved the kind of secure framework in terms of which it can accommodate the politics of difference.

Notwithstanding the approach to or model for education, learner diversity will always be a characteristic of education that needs to be addressed.

The role of teacher education in moulding teacher perceptions in a multicultural classroom

Before the first democratic elections in 1994 the education system — including teacher training colleges and state schools — was racially segregated (Van Zyl, 2002). In 1994 an open admission policy was introduced throughout the education system, with the result that a process of desegregation of educational institutions was set in motion. In particular, the desegregation process in schools has intensified the need for all teachers to develop the knowledge, skills and attitudes that will equip them to work effectively with all children (regardless of their life experiences, gender, language background, race or socio-economic status) through appropriate pre-service and in-service teacher training programmes.

Teacher education takes place through numerous providers. In spite of the desegregation process, many educational institutions in South Africa remain largely monoracial, mainly because of population numbers and distribution. Yet, according to Squelch (1993:53), multicultural approaches in teacher education curricula should not be limited to institutions that cater exclusively for a multiracial student body. She points out that equal educational opportunities and a culture of tolerance will not be achieved unless such opportunities are accompanied by comprehensive reforms throughout the entire system of teacher education. A matter of grave concern, however, is the lack of commitment from the side of government and educational authorities to enforce large scale multicultural training. In general, teacher training programmes in South Africa offer some content on intercultural understanding, but it would be fair to ask whether the limited scope of such offerings will be effective in facilitating changed attitudes among educators towards learner diversity.

In South Africa, few studies have yet been done on the effect of teachers' perceptions of and attitudes towards culturally diverse groups in multicultural schools. In contrast, there is an expanding body of overseas research available in this regard. Numerous studies undertaken in the USA indicate that educators tend to differentiate in their treatment and expectations of learners belonging to minority groups and that the cultural background of learners is often a reason for this differential treatment (Rios, 1996:10). According to Sadker and Sadker (1985) teachers tend to interact with, call on, praise, and in-

tellectually challenge white middle-class male learners most frequently and reprimand black male learners most often. Teachers' perceptions and attitudes are formed, among other things, by their personal experiences and professional education. On a personal level, teachers' perceptions are located in the individuals' psyche (such as in beliefs, values, biases, prejudices and generalisations drawn from personal experience). As a result, teachers' perceptions, attitudes and personal experience may be fundamentally at odds with the experiences of their learners who come from different backgrounds in terms of class, religion, gender and culture (Rios, 1996:15).

Moreover, teachers' perceptions are also shaped by a complex and extended process of socialisation, which takes place as a result of individual teachers' responses to the kind of teacher education received, as well as teaching experience and actual classroom practice. Pohan (1996:62) points out that pre-service teachers' beliefs about teaching and learning often serve as a filter through which all that is encountered during their education programmes is interpreted. Therefore, teachers from some ethnic groupings may unconsciously resist the post-1994 training that was specifically designed to prepare them to react in culturally responsive ways. Findings of a research project (Meier, Lemmer & Swanepoel, 1999) regarding student teachers' perceptions of group identity (groups they do not belong to) suggest that a negative group-identity bias exists among black respondents when they compare themselves with whites. By contrast, whites show signs of a positive group-identity bias towards Asians and blacks, whereas Asian respondents show a positive bias towards blacks and a negative identity bias towards whites. The findings underline the need for teacher education programmes aimed at changing possible negative feelings towards learners from diverse groups, and developing a positive disposition instead. To be effective, teacher education programmes dealing with multicultural issues should not only focus on increasing teachers' content related and pedagogical knowledge, but also attend to the disposition of prospective teachers, since multicultural competence appears to be a function of beliefs, knowledge, skills and experience (Pohan, 1996:65).

Background to the research

As mentioned earlier, this article presents the findings of a section of a local research project which formed part of a larger international study undertaken by the International Bureau of Education (IBE), a subsidiary of UNESCO.

Contact with the International Bureau of Education (IBE)

In 1996, collaboration was established between the IBE in Geneva, Switzerland and the School of Education at the University of South Africa (UNISA) by the author (subsequently local project leader) and the IBE technical adviser for multicultural education, Raul Gagliardi. This contact resulted in an invitation to the School to join an international research project entitled "Basic Education for Participation and Democracy in Human Resources Development (Teachers and Multicultural/Intercultural Education)". The purpose of this project is to help member states of UNESCO improve the training of teachers working with learners from divergent groups. Within the framework of this project a comparative study was undertaken in the following countries: Bolivia, the Czech Republic, Jordan, Lebanon, Mauritius, Mexico, Pakistan, Poland, Senegal, and Spain. The findings of the research in each of the participating countries and the synthesis have already been published (Gagliardi, 1994).

Development of the questionnaire by the IBE project team

The first phase of the IBE project involved piloting an instrument (a questionnaire) to investigate prospective teachers' perceptions about and attitudes towards learners from a variety of racial, ethnic, social and/or cultural groups (Gagliardi, 1994:15). A multiple-choice questionnaire was written in French, and later translated into Arabic, Czech, English, Polish, Spanish, and Urdu. It was tested in Bolivia, the Czech Republic, Jordan, Lebanon, Mauritius, Mexico, Pakistan,

Poland, Senegal, and Spain. In each of these countries the questionnaire was completed by 300 students from teacher training institutions. The sample of 300 students was divided into three groups, namely, a dominant and two minority groups, according to race, religion, culture/ethnicity, or language. Statistical analyses of the internal consistency of the questionnaire were carried out and these demonstrated that the questionnaire was a valid and reliable research instrument to use as a basis for comparison.

Guidelines provided by the IBE research team

The South African project followed the research design used in the international IBE project. Data obtained from the questionnaire were analysed according to the procedures determined by the IBE. The SPSS statistical software was used. The responses to the questionnaire enabled the researchers in each participating country to analyse their sample of student teachers' perceptions of and attitudes towards learners from different racial, ethnic, social or cultural groups by means of specific questions regarding the objectives of education, and to correlate the analysis with student teachers' opinions about the opportunities for learners from three different racial, religious, cultural/ethnic, or language groups. The data were also correlated with the characteristics of the respondents (such as age, ethnic or cultural group, social status, parents' level of education, language, reasons for choosing the profession) and the intergroup distance between the three groups was indicated by respondents.

Research design

The South African project was planned and executed as follows.

Problem formulation

Since perceptions do influence classroom teaching and therefore effective teacher training for multicultural education is required, it was necessary to analyse student teachers' perceptions of and attitudes towards learners from various groups. The problem was divided into the following research questions:

- What are the main objectives of schools, according to the respondents?
- What is the role of the teacher, according to the respondents?
- What are the reasons given by the respondents for choosing a teaching career?
- What solutions to academic problems of learners from diverse groups do they suggest?
- What are the respondents' perceptions of diverse groups of learners'
 - learning abilities?
 - academic problems and how they are caused?
 - intergroup distances?

The following subquestion was considered:

- What solutions do student teachers suggest for the academic problems of learners from diverse groups?

Research strategies and methods

As the research was conducted in collaboration with the IBE, the research design was bound by particular guidelines drawn up by the IBE.

The questionnaire

The data-gathering instrument used in the project was the already mentioned multiple-choice questionnaire, which was developed and provided by the IBE. It consisted of seven sections aimed at analysing a sample of prospective teachers' perceptions about and attitudes towards learners from specific groups.

Content validation of the questionnaire

The items used in the investigation were compiled by the IBE as part of a study to investigate student teachers' perceptions of and attitudes towards learners from various groups. The questionnaire was struc-

ured according to the subproblems from which a number of categories or dimensions were extracted in terms of the different items listed in Table 1.

Selection of respondents

The IBE guidelines for the selection of respondents stipulated the use of first-year students at teacher training institutions. This particular criterion was based on the assumption that these students had not had any teaching experience, and their perceptions had not been "transformed" by practical experience. A further stipulation required the selection of three groups of 100 each — a majority group and two minority groups. A third stipulation regarding the selection of respondents gave the project leader the freedom to select from the following categories: race, religion, culture/ethnicity, or language. The groups for the South African project were selected according to race: black, Asian, and white. The other proposed categories of the IBE were discounted because race had been a significant symbolic marker of social, political and economic entitlement and organization, particularly during the 1990s in South Africa (Duncan, 2003: 139). The reason behind the choice of category was to eventually advocate a move, away from the previous unfairly differentiated approach to race, to a less differentiated approach. As the South African sample population initially consisted of 503 respondents, random sampling was done to reduce it to 300 respondents.

The research team initially selected three urban, multiracial, primary school teacher training colleges in Gauteng to participate in the research. The embargo on initial teacher training in the 1990s had decimated the enrolment of student teachers to such an extent that it was impossible to make up the sample of 100 Asian students from the three colleges in Gauteng alone, and therefore a fourth urban institution with a multiracial student body, situated in KwaZulu-Natal, was approached. In all cases, verbal and written permission was first sought from the college principals for the application of the questionnaires. Although the sample was almost exclusively based in urban Gauteng and therefore not generalisable to the perceptions of the whole country's student teachers, the findings are relevant to debates about educational change in South Africa.

Distribution of the questionnaires

The researchers physically distributed the questionnaires during student contact sessions at the selected institutions on arranged dates. The respondents were briefed on the broader research project and its aims, the structure of the questionnaire and how it would be distributed and collected. The researchers experienced problems with the sensitive nature of the questionnaire which explores the respondents' attitudes to learners from three racial groups. In the aftermath of socio-political change in South Africa, some respondents were reluctant to express attitudes that could be regarded as racist. This situation was dealt with successfully by elaborating on the aim of the project and its link to a broader international project.

Follow-up study

The findings of the first data set provided meaningful data and, for the sake of comprehensiveness and verification, it was decided to repeat the process in the following year and apply the same questionnaire to the same students, then in their second year, to determine whether the perceptions of student teachers had changed after some practical teaching experience and theoretical exposure to diversity in the process of course-work modules taught at the colleges. The same strategies and methods as during the first data collection were used. However, the sample in the second year was only 177 ($n = 177$) due to an under-average pass rate.

Data analysis

The following section contains a presentation and discussion of the research findings of the two consecutive surveys of a certain section of the questionnaire dealing with the solutions envisaged by student

Table 1 Respondents' solutions to educational difficulties

Possible solutions	Yes		No		Don't know		Total									
	Year 1		Year 2		Year 1		Year 2									
	N	%	N	%	N	%	N	%								
1. Grouping learners in different classes according to their needs and interests	196	65.6	114	65.5	87	29.1	51	29.3	16	5.3	9	5.2	299	100	174	100
2. Providing separate schools or classes according to the learners' mother tongues	102	34.0	65	37.6	175	58.3	98	56.6	23	7.7	10	5.8	300	100	173	100
3. Teaching each learner to master the medium of instruction so that he (or she) can acquire further knowledge	191	63.9	126	73.3	66	22.1	32	18.6	42	14.0	14	8.1	299	100	172	100
4. Mixing learners of different cultures to promote interchange and learning	230	76.9	118	67.4	41	13.7	36	20.6	28	9.3	21	12.0	299	100	175	100
5. Implementing supplementary courses for learners with difficulties	256	86.8	164	93.7	16	5.4	6	3.4	23	7.8	5	2.9	295	100	175	100
6. Developing specific training for teachers who will take multicultural classes	249	83.3	151	87.3	26	8.7	10	5.8	24	8.0	12	6.9	299	100	173	100
7. Reducing the number of learners per class to be able to give more attention to each child	289	96.3	167	95.4	8	2.7	6	3.4	3	1.0	2	1.2	300	100	175	100
8. Adapting the syllabus to different cultural groups	210	71.2	129	74.1	46	15.6	28	16.1	39	13.2	17	9.8	295	100	174	100
9. Helping each linguistic, cultural, religious and ethnic group to determine its own education	103	34.6	71	40.6	141	47.3	73	41.7	54	18.1	31	17.7	298	100	175	100
10. Helping each pupil to progress in his or her mother tongue	157	53.0	97	56.1	88	29.8	46	26.6	51	17.2	30	17.3	296	100	173	100

teachers for resolving academic problems in multicultural schools in South Africa. Respondents were asked to choose solutions which they considered viable for learners' academic problems. They had to respond to each of ten possible solutions (see Table 1) to the educational difficulties of learners in the classroom and indicate those they considered viable.

It is evident from Table 1 that the solutions most frequently mentioned by respondents in year 1 and year 2 were items 7, 5, and 6: "decreasing the number of learners per class to be able to give more attention to each child" (year 1 = 96.3%, year 2 = 95.4%); "implementing supplementary courses for learners with difficulties" (year 1 = 86.8%, year 2 = 93.7%); "developing specific training for teachers who will take multicultural classes" (year 1 = 83.3%, year 2 = 87.3 %). These items were selected by respondents as most likely solutions to educational problems.

In year 1 items 4, 8, 1, 3, and 10, namely, "mixing learners of different cultures to promote interchange and learning (76.9%); "adapting the syllabus to different cultural groups" (71.2%); "grouping learners in different classes according to their needs and interests" (65.6%); "teaching each learner to master the medium of instruction so that he/she can acquire further knowledge" (63.9%); and "helping each pupil to progress in his or her mother tongue" (53%) were chosen to a lesser extent, but were nevertheless solutions offered by more than half of the respondents. In year 2, items 8, 3, 4, 1, and 10, namely, "adapting the syllabus to different cultural groups" (74.1%); "teaching each learner to master the medium of instruction" (73.3%), "mixing learners of different cultures to promote interchange and learning" (67.4%); "grouping learners in different classes according to their needs and interests" (65.5%) and "helping each pupil to progress in his or her mother tongue" (56.1%) were chosen to a lesser extent but still significant as more than half of the respondents chose these items.

By comparison, in both years fewer respondents felt that difficulties could be resolved by means of item 9, "helping each linguistic, cultural, religious and ethnic group to determine its own education" (year 1 = 34.6%; year 2 = 40.6%) and item 1, "providing separate schools or classes according to the children's mother tongue" (year 1 = 34.0%; year 2 = 37.6%).

It is interesting that in both the first and second years, items 7, 5, and 6 (in declining order of frequency) were most frequently selected by respondents as possible solutions to resolve educational difficulties. In the first year students had not been exposed to practical teaching and theoretical content regarding multicultural education. Their perceptions in the first year regarding possible solutions to educational difficulties may have been formed by their experience of their own school careers and/or by influences of media reports and comments of parents and friends (Swanepoel & Booysse, 2003:95-96; Markinor Opinion 2004 Racial Relations, 2004; Ndlangisa *et al.*, 2005:1; ANC Today, 2004). Although second-year students had been exposed to practical teaching of multicultural content in a multicultural class, they still perceived the solutions to education difficulties to be the same as those selected in the first year. The choice made most frequently, namely, item 7 "reducing the number of learners to be able to give each child more attention" may stem from the fact that large classes were a contentious matter during and after apartheid education. During the apartheid era, class sizes in black schools were unacceptably high because of financial constraints imposed on black education (Fraser *et al.*, 1996). Moreover, after the restructuring of education, conditions in formerly black schools did not improve overnight. Formerly white schools were also affected by the restructuring. The teacher learner ratio increased when teaching posts were reduced (Pretorius, 1995:1), and some white teachers experienced this situation as intolerable. The issue of large classes is clearly still problematic for student teachers, because reducing the number of learners per class was still considered in the second year as an important solution to educational difficulties.

Before education as a whole was restructured, much was made in the media of the drop-out and failure rates in black schools and many South African citizens considered black education to be inferior to white education (Meier, 1998). A possible reason why item 5, "implementing supplementary courses for learners with difficulties" was chosen as a second solution to educational problems may have been that two-thirds of the respondents (n = 100 = black; n = 100 = Asian) were 'victims' of the former black education system, and that the remainder (a significant percentage) were influenced by media reports that black learners in former white schools found it difficult to cope

Table 2 Importance of the solutions in terms of the three dimensions

	Yes		No		Don't know		Yes/item	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
Compensation (4 items)	1004	611	96	50	128	36	251	174
Separation (4 items)	558	359	491	249	144	85	140	155
Integration (2 items)	421	244	107	68	70	35	211	161

with learning challenges (Swanepoel & Boooyse, 2003:94-100). Student teachers consider it very important that supplementary courses be implemented to assist learners with educational difficulties. This view is underscored by the increase in the percentage of respondents who selected item 5 as a solution to educational difficulties in the second year.

The weight given to item 6, "developing specific training for teachers who will take multicultural classes", differs only slightly from that given to item 5, possibly because student teachers felt that the political and social segregation of the apartheid era rendered them incapable of working with learners from diverse groups, particularly in view of the prevalence of negative perceptions among different groups, which they hoped to be able to overcome by undergoing training to teach in a multicultural environment (Swanepoel & Boooyse, 2003:94-100).

The respondents were clearly not in favour of the solution posed in item 9, "helping each linguistic, cultural, religious and ethnic group to determine its own education" and item 2, "providing separate schools or classes according to the learners' mother tongues" as possible solutions to resolve educational difficulties. Respondents might have perceived these two items as being too close to the situation during apartheid education where segregated schools catered for the self-determination of different groups, a situation which was not accepted by the majority of South African citizens (Van Zyl, 2002). The dissatisfaction with items 9 and 2 as solutions to educational difficulties was underlined by the percentage increase in the second year.

The teaching solutions listed in Table 1 were categorised in terms of three dimensions defined by the IBE, namely, those of separation, compensation, and integration. Homogeneous items, representing a specific cluster, were grouped together because of the internal consistency underpinning the clustered items. The separation dimension subsumed those solutions that entail the grouping of learners according to their needs, interests, mother tongue or cultural, religious or ethnic group so that they can be taught according to their specific profile in terms of the said groupings. The compensation dimension grouped solutions which include compensatory measures to remedy academic problems. These compensatory measures range from instituting supplementary courses, adapting the syllabus, and giving teachers specific multicultural training with a view to decreasing the number of learners per class. The integration dimension grouped solutions that involve the mixing of learners of different ethnic groups to promote intercultural communication and learning.

The separation dimension was reflected in items 1, 2, 9, and 10, namely, "grouping learners in different classes according to their needs and interests", "providing separate schools or classes according to the children's mother tongue", "helping each linguistic, cultural, religious and ethnic group to determine its own education", and "helping each pupil to progress in his or her mother tongue".

The second dimension comprised the compensation dimension, which was reflected by items 5, 6, 7, and 8, namely, "implementing supplementary courses for learners with difficulties", "developing specific training for teachers who will take multicultural classes", "reducing the number of learners per class to be able to give each child more attention", and "adapting the syllabus to different cultural groups".

Finally, the integration dimension was comprised of items 3 and

4, namely, "teaching each pupil to master the medium of instruction so that he (or she) can acquire further knowledge", and "mixing learners of different cultures to promote interchange and learning".

The importance of these types of solutions is reflected in Table 2, which indicates the number of responses to items included in each dimension.

The respondents in both years were strongly in favour of compensatory measures such as instituting supplementary courses, adapting the syllabus, giving teachers specific multicultural training and decreasing the number of learners per class. Slightly more respondents were in favour of than against separation. Integration items attracted the lowest response frequencies. Responses in favour were higher than those against.

It is evident from Table 2 that most respondents were in favour of compensatory solutions to academic problems, possibly because respondents felt that change was particularly required in formerly black education, which was perceived to offer inferior education. It was also interesting to note that responses in favour of separation increased in the second year while those in favour of integration decreased, possibly because respondents had only been exposed to teaching practice in the second year and had found diversity in the classroom difficult to handle, which would explain their option for separatory solutions, such as grouping learners in different classes according to their needs and interests, providing separate schools or classes according to the children's mother tongue, helping each linguistic, cultural, religious and ethnic group to determine its own education, and helping each learner to progress in his or her mother tongue.

The above findings were those of the whole group (year 1 = N = 300; year 2 = N = 177). However, analysis according to race (black, Indian and white) of the respondents revealed a disturbing tendency (see Tables 3 and 4).

The responses to item 2 "organise separate schools and classes according to learners' mother tongue" were as given in Table 3.

Table 3 Responses to item 2 "organise separate schools and classes according to learners' mother tongue"

	Yes		No		Don't know	
	Year 1 %	Year 2 %	Year 1 %	Year 2 %	Year 1 %	Year 2 %
Black respondents	17	10	80	87	3	3
Asian respondents	21	14	69	83	10	3
White respondents	64	74	28	16	8	10

It is evident from Table 3 that unlike white respondents, black and Asian respondents do not regard organising separate schools and classes according to learners' mother tongue as a solution to academic problems, and it is interesting that these opinions (white in favour, blacks and Asians against) are strengthened in the second year.

The responses to item 4 "mix learners from different cultures in order to encourage exchanges and mutual learning" were as given in Table 4.

Table 4 Responses to item 4 "mix learners from different cultures in order to encourage exchanges and mutual learning"

	Yes		No		Don't know	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
	%	%	%	%	%	%
Black respondents	91	90	7	7	3	3
Asian respondents	90	90	5	3	5	7
White respondents	55	36	27	40	18	24

It is evident that the racial groups concerned differed about possible solutions to academic problems. Table 4 shows that black and Asian respondents were distinctly in favour of mixing learners from different cultures to encourage exchanges and mutual learning whilst white respondents who participated in this investigation were against this idea; in fact, in the second year the percentage of white respondents voting against the mixing of learners nearly doubled, possibly because white respondents consider learners from other ethnic groups to be violent, undisciplined and academically below standard (Fraser *et al.*, 1996). Note that white students' responses did not change as a result of their exposure to theoretical subject matter indicating ways to deal with problems in multicultural classrooms. According to Pohan (1996:62) individuals' perceptions are shaped by a complex and extended process of socialisation (in this case apartheid and resistance against it). Therefore, in spite of progressive teacher education, which prepares students to react in culturally responsive ways, students may unconsciously resist this kind of training. The reason is that an individual's prior beliefs about teaching and learning often serve as a filter through which all that is encountered during their training is interpreted.

It is clear from the findings that integratory solutions to educational problems were not popular among white student teachers at the time this study was conducted. It is even more discouraging to note that responses in favour of integratory solutions decreased in the second year whilst those in favour of separatory solutions increased (see Table 2). This does not bode well for a new democracy in which the value and chances of individuals and groups should be equal. Even more disturbing was the finding that white respondents increasingly chose separatory solutions to educational problems, possibly because of a historically conditioned tendency to regard other groups as incompetent and ignorant (Fraser, 1995) and therefore a reluctance to share for fear of losing the education opportunities that they were used to. Negative group identity bias has been found to have a negative influence on classroom teaching (Rios, 1996:10; Sadker & Sadker, 1985) to the extent that allowing such a bias to take its toll borders on unprofessional conduct.

Implications for teacher training

Teacher perceptions of learner diversity do influence classroom teaching. It was evident from the research that negative perceptions exist, especially among white student teachers (who participated in the research) towards race groups other than their own. The current desegregation of South African schools calls for teacher training programmes to especially focus on the following:

- Modules and courses on multicultural education should be made compulsory within teacher training programmes. The initial focus should be on persuading student teachers to actively assess their perceptions of learners from diverse backgrounds and then, with a theoretical component as verification, assist student teachers to develop the attitudes, knowledge and skills that will equip them to teach effectively in culturally diverse classrooms.
- Student teachers need to be exposed to learner diversity as early as possible during their training, preferably from their first year. The placement of student teachers during their practical teaching should play an important role and should be based on certain

criteria of where teaching practice can be done to facilitate exposure to learner diversity. The rotation of sites where practical teaching is done is also an important factor.

- The duration of the exposure to learner diversity may also contribute to a better understanding of different races and therefore the dismantling of stereotypes.

Learner diversity will always be a characteristic of education regardless of the approach to education or the model on which education is based. The ultimate purpose is to try and change entrenched perceptions, stereotypes, and associated behaviour. To accomplish this aim, student teachers should be placed for as long as possible in a teaching situation of a diverse learner population, and this practical experience should be backed by a comprehensive theoretical component.

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