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# The financial and environmental needs and problems of a group of students with impairments in higher education

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Many countries worldwide have legislation to prevent discrimination against students with disabilities and to integrate them into the general education system on secondary and tertiary levels. Moreover, the United Nations and the Commonwealth support and protect the rights of people with disabilities. However, despite legislation locally and abroad, it appears that many remaining barriers prevent people with impairments from full participation in their communities. Against this background, a survey was conducted to determine the environmental and financial needs and problems experienced by a selected group of South African students with impairments in higher education. The students with impairments from three institutions of higher education, who were included in this survey, expressed a need for direct financial support relating to special equipment, discounts on textbooks, part-time employment and decreased tuition fees. Furthermore, they had special requirements for parking space, buildings and lecture rooms.

## Die finansiële en omgewingsbehoefte en probleme van 'n groep studente met gestremdhede in hoër onderwys

Baie lande dwarsoor die wêreld het wetgewing om diskriminasie te voorkom teen einde studente met gestremdhede in die gewone onderwysstelsel op sekondêre en tersiêre vlak te integreer. Nie net individuele lande nie, maar ook die Verenigde Nasies en die Statebond ondersteun en beskerm die regte van mense met gestremdhede. Ondanks hierdie wetgewing blyk dit egter dat daar steeds baie hindernisse bestaan wat voorkom dat persone met gestremdhede ten volle by hulle gemeenskappe inskakel. Dit is teen hierdie agtergrond dat hierdie ondersoek gedoen is om te bepaal watter finansiële en omgewingsprobleme 'n geselekteerde groep Suid-Afrikaanse studente met gestremdhede in hoër onderwys ervaar. Studente met gestremdhede aan drie inrigtings vir hoër onderwys wat by die ondersoek betrokke was, het 'n behoefte uitgespreek aan direkte finansiële ondersteuning rakende spesiale toerusting, deeltydse werk, verminderde studiegeld en afslag op handboeke. Hulle het ook spesiale behoeftes ten opsigte van parkering, geboue en lesinglokale.

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Since the early 1970s many countries worldwide have started to implement legislation to prevent discrimination against people with disabilities. This legislation is aimed at improving conditions and removing barriers to integrate students with disabilities into the general education system on secondary and tertiary levels. Not only individual countries, but also the United Nations and the Commonwealth support and protect the rights of people with disabilities. According to the UN Declaration on the Rights of Disabled Persons (1978) (Hodge 1994: 18), people with disabilities or disadvantages are entitled to the right to any necessary treatment, rehabilitation, education, training and other services to develop their skills and capacities to the maximum. More specifically, the Commonwealth Disability Services Act (1987) ensures that people with disabilities should receive services which are tailored to their individual needs and goals. The belief in education as an inalienable right which is not denied to any group or individual that might be considered “different” being denied it, is fundamental to the body of anti-discrimination and equal opportunity legislation. Equal rights imply that students with special needs cannot be denied education in regular settings, simply because they have a disability. The Commonwealth Disability Discrimination Act, which came into effect in 1993, specifically includes a requirement for academic environments to be free from discrimination on the grounds of a disability (Hodge 1994: 18).

As early as 1970 (Pivik *et al* 2002: 97), the Commission on Emotional and Learning Disorders in Canada produced a report (CELRIC Report) which endorsed the integration of students with “exceptionalities” into the general education system. This report offered a new perspective on educational practices for children with disabilities and provided the first endorsement for mainstreaming or integration in Canada. The USA has similar legislation. Particularly Section 504 of the Rehabilitation Act of 1973 prohibits discrimination on the basis of disabling conditions by programmes and activities receiving or benefiting from federal financial assistance (West *et al* 1993: 456). According to Malakpa (1997: 13), this Act was in part enacted to make the job market and institutions of higher education accessible to people with disabilities. With regard to post secondary education, the Americans with Disabilities Act (1990) specifically prohibits discrimination in the areas of recruitment

and admission, academic and athletic programmes and activities, student examinations and evaluations, housing, financial aid, counselling, and career planning and placement (West *et al* 1993: 456). According to Satcher & Adamson (1995: 83), this Act requires that colleges and universities provide equal educational opportunities for qualified students with learning disabilities.

Although mainstreaming was part of the school system in Britain for many years, higher education has remained largely unaffected by the requirement to provide higher education to people with disabilities. According to Borland & James (1999: 84), it was only during the 1990s that the Funding Councils in England, Wales and Scotland made specific statements about widening provision for students with disabilities. After the passing of the Disabilities Discrimination Act in 1995, amendments were made to the Further and Higher Education Act. These amendments compelled the Funding Councils to require institutions of higher education to publish Disabilities Statements to inform potential students who might have a particular disability of the services available to them at these institutions (Borland & James 1999: 85).

In Australia the Disability Discrimination Act of 1992 positively supports the participation of all people with disabilities at all levels of education. This law means that more students with disabilities can now gain access to tertiary educational institutions than in the past. However, MacLean & Gannon (1997: 217) are of the opinion that although this legislation makes it unlawful to exclude people from universities on the grounds of disability, it does nothing to support people with a disability with positive assistance from the university community.

In South Africa the development of inclusive education was greatly influenced by international movements in this regard and especially by the political changes since 1994. Associated with this socio-political shift, important values such as equity, non-discrimination, liberty, respect and social justice which have provided the framework for the Constitution (Landsberg *et al* 2005: 16) have been emphasised. According to Engelbrecht *et al* (1999: 7), inclusive education in South Africa has its origin in a rights perspective informed by liberal, critical and progressive democratic thinking. Due to general social transformation, the rights of all people in the Republic of South Africa, irrespective of their race, gender, ethnic or social descent, colour, sexual orientation, age, disa-

bility, religion, faith, culture, language, et cetera, are protected. Chapter 2 (Bill of Rights) of the Constitution of the Republic of South Africa (RSA 1996:8) guarantees fundamental rights to all citizens. Discrimination based on disability is specifically mentioned and disabled people are thus guaranteed the right to be treated equally and to enjoy the same rights as all other citizens (Office of the Deputy President 1997: 17). The implication for education and training in general is that not only schools, but also all institutions of higher education should take government policy as well as the diversity of the community into account, and should provide for the inclusion of people with all types of disabilities in their student population.

Against the above-mentioned background, the question arises whether legislation and endeavours to provide special education meet the needs of people with disabilities and comply with the principles of inclusion and full participation, especially in higher education.

Research done in this regard indicates conflicting evaluations of the success of these efforts. The following are a few examples.

Greenbaum *et al* (1996: 167) interviewed 49 adults with learning disabilities who attended a large public university between 1980 and 1992 about their current employment and social status. Most respondents had adjusted well to the demands and complexities of adulthood. More than 80% of the participants not in college at the time of the interview were employed, mostly in white collar jobs that provided opportunities for advancement. Almost all of the employed participants were happy with their jobs, and more than half of all participants lived in an apartment or house with a roommate or spouse. As a group, they were socially active at the time of the interview, and slightly more than 80% were satisfied with their social lives. However, Greenbaum *et al* (1996: 171) pointed out that the respondents in this survey had a college education and research done in this regard suggests that a college education has a positive impact on the employment status of young adults with learning disabilities. Those who attend college typically obtain better paying jobs and higher status than those who do not. Those who are not college-bound are often employed in unskilled or semi-skilled jobs, with many working part-time only. Despite the satisfaction with their jobs and social lives, most participants in the above-mentioned study indicated that their learning disabilities adversely affected them at work or in

other facets of their life (Greenbaum *et al* 1996: 171). Moreover, only 9% of the participants disclosed their disabilities when applying for jobs. The primary reason for non-disclosure was fear of discrimination (Greenbaum *et al* 1996: 170).

However, not all studies had similar positive outcomes. Perry *et al* (2000: 924) found that, despite the existence of disability-related legislation, there is evidence in the USA as well as across the member states of the European Community that the employment experiences of individuals with and without disabilities are not equitable. For example, research in the USA demonstrated that persons with disabilities are less likely to be employed, and earn lower salaries if they are employed, than persons without disabilities. Similarly, in member states of the European Community, individuals of working age who have disabilities experience more and longer periods of unemployment than individuals without disabilities.

In another study, the general attitudes of academics, administrative staff and students towards students with a disability were measured (Maclean & Gannon 1997). Their study focussed on the relationship between general attitudes towards people with disabilities and the nature of institutional support perceived to be appropriate by staff and students, and offered to students with emotional disability within a university setting (MacLean & Gannon 1997: 219). The results suggest that a university community is more positive than the general population with respect to attitudes towards disability. However, the data showed that a high level of positive attitude to disability in general does not necessarily translate to positive concrete support for university students who have an *emotional disability* (own italics). It appears that students who exhibit signs of stress or emotional disability are not liable to receive much special support. In contrast, higher levels of support are deemed appropriate for persons with a more *visible disability* (own italics). It would seem that this difference between the high levels of positive attitude towards disability in general and a low level of support in practice is singularly focussed towards students with an emotional disability and does not apply where the disability is observable (a visual or physical disability) (MacLean & Gannon 1997: 227).

The results of the above-mentioned study suggest a difference between the responses of academics, students and administrative staff

and their attitudes towards people with disabilities in general and how they are likely to act towards a student with an emotional disability. Unfortunately, for students with an emotional disability at a university, *if the attitudes and beliefs held by university communities are to be used as an indication of the levels of appropriate support, little support will be forthcoming* (own italics). In addition, if social integration is an expectation for university students with an emotional disability, the levels of discomfort and sympathy measured in the university community in this study are likely to mitigate strongly against this (MacLean & Gannon 1997: 228).

In 2003 Losinsky *et al* (2003: 305-8) undertook a descriptive cross-sectional study to establish the ease of accessibility to wheelchair-bound students at a large institution of higher education in South Africa. Accessibility was defined not simply in terms of access to buildings, but also of the added time and distance travelled by wheelchair-bound students on the campus. They found that despite a stated commitment to open access to higher education for people with disabilities, the institution still fell short of these standards. The majority of the buildings were found to be only partly accessible, while some venues were completely inaccessible to wheelchair-bound students. Alterations to toilet cubicles, working surfaces and lift controls seem to have been overlooked in the initial transformation process.

Regarding the added time and distance travelled by wheelchair-bound students, the findings of Losinsky *et al* (2003: 307-8) indicate that a wheelchair-bound student would consistently be unable to reach their lecture venues within the 10 minutes allocated by the university. The students would regularly be late for lectures and unable to consult with lecturers after classes. As time periods between classes are often used for socialising with friends and other students, opportunity to interact with peers would be limited. Inability to do this may put these students at a social disadvantage and limit full integration into campus life. Choice of study field may also be limited, as some faculty buildings are far less accessible than others.

The South African government's policy on education aims to remove all discriminatory practices and barriers and provide access to all possible educational and social opportunities. But, according to the study by Losinsky *et al* (2003: 305, 308), it appears that despite a firm commitment by government to reintegrate those with physical or mental

disabilities fully into their communities, many barriers to full participation remain. Although the principle has been accepted, practice lags behind. This becomes evident when the following is considered.

During 2001 there were 64 603 children with impairments in special schools in South Africa (Dept of Education 2001: 13). However, it is estimated that potentially 280 000 children younger than 18 years with impairments are unaccounted for (Dept of Education 2001: 9). This means that only 18.75% of the impaired school population are accommodated in special schools and that more than 80% of children with impairments are not part of the school system. According to the Department of Education (2001: 14) this is a direct result of previous apartheid policies that allocated facilities on a racial basis.

The situation in higher education is much worse. From a total of 168 974 students in the three institutions included in this survey, only 751 indicated on their registration forms that they were impaired in some way. This represents only 0.4% of the student population (cf Table 1).

Although it would be unrealistic to expect that the number of students with impairments in higher education reflects the percentage of people with impairments in the total population, it seems that this number is far less than can be expected. According to Malakpa (1997: 14), Hartman (1993: 9) and West *et al* (1993: 457), the number of students with disabilities in higher education in the USA is between 7% and 10.5%. In Britain (Borland & James 1999: 87) the number of first degree students with disabilities is between 3.9% and 4.5%, and according to Glenda Hodge (1994: 19) in Australia 2-3% of university students have been identified as being disabled. Therefore, in the light of the above-mentioned, it is obvious that reasons must exist for the poor participation of people with disabilities in higher education in South Africa.

Against the above-mentioned background and current situation in South Africa, the survey described in this report was conducted to determine the financial and environmental needs and problems of a selected group of South African students with disabilities/impairments in higher education.

## 1. Explanation of concepts

Since the early 1990s there has been an international debate on the meaning of disability. Currently disability is seen as limitations or barriers in the environment that cause the person to become disabled (cf Du Toit *et al* 2000: 5-6). Therefore, for the purpose of this report the concept “students with impairments” is used, which implies learners (in higher education) with physical (body structure) and physiological (body function) impairments who are disabled by barriers to learning and development. The terms “disabled” or “disability(ies)” are employed only in cases where they were used by the students themselves or by another author(s).

## 2. Methodology

Four institutions of higher education were approached for permission to undertake the research. These four institutions were selected on the basis of size and type. The largest distance higher education institution, two large residential universities and the largest university of technology in the country were approached. However, only three institutions responded to this request and were therefore included in this research project.

Based on the literature review, a questionnaire consisting of 74 items was compiled. Both quantitative data (through closed-form items) and qualitative data (through open questions) were obtained by means of this questionnaire. The questions focussed *inter alia* on the following five major areas:

- Biographical and personal information regarding the students with impairments;
- The nature and extent of the students’ impairments;
- The academic needs and problems experienced by students with impairments;
- The social needs and problems experienced by students with impairments;
- The problems and needs of impaired students regarding their financial and environmental situation.<sup>1</sup>

1 Due to the extent of this research project, two articles (Crous 2004a and 2004b) have already been published. The one article focused on the academic needs and

The last four questions of the questionnaire were open questions in which the students could express in their own words the influence of their impairment on their studies, their need to be academically successful and recommendations for higher education institutions to assist disabled students more effectively.

Before the questionnaire was finalised, it was scrutinised by two lecturers who are involved in Special Needs Education. In addition, a student with impairments was requested to answer the questionnaire. All obscurities were removed and a number of questions were reformulated. The questionnaire was also recorded on audiotape to accommodate students with visual and physical impairments who might find it difficult to answer the questionnaire in writing.

The questionnaires returned by the students were analysed and descriptive statistics were used to determine frequency and percentages. In addition, crosstables and *chi*-square analysis were employed to establish if significant differences exist between the students from distance and residential institutions regarding diverse variables.

The questionnaires and audiotapes were distributed to 751 impaired students whose names and addresses were provided by the institutions. Of these 704 were enrolled at the institution for distance education and the rest (47) at the two residential universities. After three weeks, follow-up questionnaires were mailed to the same students.

### 3. Compilation of the sample

The compilation of the sample in terms of number, gender, race, academic level and status of employment is reflected in Tables 1 to 4. Respondents who did not answer a particular item are indicated as “missing” in the tables below. They were also excluded from the sample and therefore percentages are not always based on  $n = 265$  (Table 2).

problems and the other on the social needs and problems of a group of students with impairments in higher education. The present article focuses only on the last-mentioned area and therefore, to have a total picture of the project, the three articles should be read together and be seen as a unit.

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Table 1: Number and percentage of students with impairments at selected institutions

University	Total number of students	Number of disabled students	% disabled of total student population
Distance	118 168	704	0.59
Residential 1	28 093	18	0.06
Residential 2	22 713	27	0.12
Total	168 974	751	0.44

As indicated in Table 1, from a total of 168 974 students in the three institutions included in this survey, only 751 indicated on their registration forms that they were impaired in some way. This represents only 0.44% of the total student population in these institutions.

According to the census return of 2001, a total of 2 255 982 individuals reported that they have some kind of disability. This number represents slightly more than 5% of the total population (44 819 778) enumerated in the census (Statistics South Africa 2001).

Although it would be unrealistic to expect that the number of students with impairments in higher education reflects the percentage of people with impairments in the total population in the country, it seems, in comparison with other countries, that this number is far less than can be expected.

Table 2: Number and percentage of students with impairments in the sample

University	Number of students with impairments in sample	% of students with impairments in sample
Distance	247	93.2
Residential 1	10	3.8
Residential 2	8	3.0
Total	265	100.0

Of the 751 questionnaires that were sent out, a total of 265 was returned. This represents a total response rate of 35.28%. Of these 18 were students from the two residential universities and this represents a return rate of 38.29%. The number of students in distance education,

who returned their questionnaires, was 247 and this represents a return rate of 35.08%. For the purpose of this survey the data of the students from the two residential universities were combined.

The compilation of the sample in terms of gender, race and academic level of the students with impairments is reflected in Table 3.

Table 3: Gender, race and academic level of students with impairments

	Residential		Distance		Total	
	f	%	f	%	f	%
Gender						
Male	8	44.4	121	49.0	129	48.7
Female	10	55.6	121	49.0	131	49.4
Missing	0	0	5	2.0	5	1.9
Total	18	100	247	100	265	100
Race						
Asian	0	0	26	10.5	26	9.8
Black	1	5.6	78	31.6	79	29.8
Coloured	1	5.6	5	2.4	7	2.7
White	16	88.8	134	54.3	150	56.6
Missing	0	0	3	1.2	3	1.1
Total	18	100	247	100	265	100
Academic level						
Undergraduate	13	72.2	180	72.9	193	72.8
Postgraduate	5	27.8	63	25.5	68	25.7
Missing	0	0	4	1.6	4	1.5
Total	18	100	247	100	265	100

According to Table 3 there is almost an even distribution of male (129 or 48.7%) and female (131 or 49.4%) in the sample. There were 26 (9.8%) Asian, 79 (29.8%) black, 7 (2.7%) coloured and 150 (56.6%) white students in the sample. Thus, more than more than half of the students were white. The higher representation of white students could be the result of unequal educational provision during the apartheid era.

The distribution between under- and postgraduate students in residential and distance education in the sample was almost the same. At the residential universities there were 72.2% (13 out of 18) undergraduate and 27.8% (5 out of 18) postgraduate students, while in

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distance education 72.9% students (180 out of 247) were undergraduate and 25.5% (63 out of 247) were postgraduate students. Four students in distance education (1.5%) did not indicate their academic level.

Table 4: Status of employment

University	Full-time student		Part-time student/ Part-time worker		Full-time worker/ Part-time student		Missing		Total	
	f	%	f	%	f	%	f	%	f	%
Residential	13	72.2	2	11.1	3	16.7	0	0	18	100
Distance	63	25.5	51	20.7	126	51	7	3	247	100
Total	76	28.7	53	20	129	48.7	7	2.6	265	100

As can be expected, most students at the residential universities are full-time students, whereas most students in distance education are in full-time employment and therefore part-time students. In the sample, 13 (72.2%) students at residential universities are full-time students, while 63 (25.5%) students in distance education are full-time students. This means that 177 (72.0%) students in distance education are either in full-time (126) or part-time (51) employment while only 5 (27.8%) of the residential students are in some or other form of employment. Seven students (2.6%) in distance education did not answer this question.

## 4. Discussion of results

The quantitative results from the questionnaire focussing on the financial and environmental needs of students with impairments are summarised in Tables 5 to 10. The options and the number of students choosing each option appear in the following tables.

## 5.1 Financial circumstances

### 5.1.1 Quantitative analysis of the financial circumstances of students with impairments

Table 5: Financial circumstances

Financial circumstances	f	%
Financial dependence:		
I am financially independent	98	37.4
I am financially independent and support my own family	67	25.6
I am financially dependent on my parents	97	37.0
Total	262	100
Need for extra financial support:		
I need extra financial support	123	47.7
I do not need any extra financial support	135	52.3
Total	258	100

Although a total of 63% of the students with impairments stated that they are either financially independent (37.4%) or financially independent and supporting a family (25.6%), almost half of them (47.7%) indicated that they still need extra financial support. Although there are quite a large number (37%) of the students who are still financially totally dependent on their parents, this is most probably also the case with students who are not impaired in any way.

### 5.1.2 Differences between the financial circumstances of students from different types of universities

Table 6: Crosstab of financial dependence of students from different institutions

Options	Residential		Distance	
	f	%	f	%
I am financially independent	4*	22.2	94	38.5
I am financially independent and support my own family	2*	11.1	65	26.7
I am financially dependent on my parents	12	66.7	85	34.8
Total	18	100	244	10

\* Please note that 2 cells have less than 5 frequencies

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*Chi*-square and significance of difference in financial dependence among students from different institutions:

<i>Chi</i> -square	df	Significance
7.359	2	P < 0.05

Significantly more students in distance education (65.2%) are financially independent (38.5%) and/or support their own family (26.7%) in comparison to residential students (33.3%) who are either financially independent (22.2%) or financially independent and support their own family (11.1%). This can be expected since 51% of students in distance education are in full-time employment in comparison with 16.7% of residential students (cf Table 4). Therefore, it is not surprising that significantly more residential students (66.7%) are financially dependent on their parents, compared to 34.8% of students in distance education who are in the same situation.

### 5.1.3 Qualitative analysis of the financial circumstances of students from different types of universities

Besides the request for extra time during examinations, the need for financial assistance in different forms was often raised by a very large number of students with impairments. The following are a few examples: “Disabled peoples should be part of the university budget”; “All disabled students should receive a disability grant”; “bursaries”; “loans with lower interest rates”; “longer period to repay loans”. Apart from the requests for direct financial support, there are also requests for support in terms of treatment and special equipment such as: “Part-time employment at universities should be earmarked for disabled students”; “decreased tuition fees due to high cost of medication and other medical treatment”; “discount on books”; “access to the internet at a reduced rate”; “the university should make a deal with some or other company to supply disabled students with the necessary equipment”.

## 5.2 Environmental needs and problems

### 5.2.1 Quantitative analysis of the environmental needs and problems of students with impairments

Table 7: Accessibility of facilities

Accessibility of facilities	f	%
All facilities (buildings, toilets, etc) are accessible	169	69.3
Some facilities are accessible	60	24.6
No facilities are accessible	15	6.1
Total	244	100

From Table 7 it seems that 69.3% of the sample is satisfied with the accessibility of buildings and other facilities on campus. However, more than 30% of the students indicated that only some (24.6%) or none (6.1%) of the facilities on campus are accessible to them.

Table 8: Crosstab of the accessibility of facilities on campus as perceived by students of different institutions

Options	Residential		Distance	
	f	%	f	%
All facilities (buildings, toilets, etc) are accessible	12	70.6	157	69.1
Some facilities are accessible	4*	23.5	56	24.7
No facilities are accessible	1*	5.9	14	6.2
Total	17	100	227	100

\* Please note that 2 cells have less than 5 frequencies

*Chi*-square and significance of difference in perceptions among students from different institutions of the accessibility of facilities on campus:

<i>Chi</i> -square	df	Significance
0.015	2	P> 0.05

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From Table 8 it is very interesting to note that there is no significant difference in the perceptions between residential and distance education students of the accessibility of facilities on campus. In both cases approximately 70% of the students with impairments are of the opinion that all facilities are accessible while approximately 30% of them perceive that none ( $\pm 6\%$ ) or only some ( $\pm 24\%$ ) are accessible. This may indicate that students with impairments have not been adequately kept in mind in the designing of buildings and the provision of other physical facilities. From these findings it seems that despite legislation in this regard, higher education institutions do still not provide a friendly environment for many students with impairments.

Table 9: Visits to campus

Visits to campus	f	%
I visit the campus frequently	32	12.2
I visit the campus sometimes	88	33.4
I visit the campus almost never	143	54.4
Total	263	100

Due to the fact that most of the students in the sample (93.2%) (cf Table 2) are studying by means of distance education, it should not really be necessary for them to visit the campus. Despite this fact, 45.6% of the students in the total sample indicated that they visit the campus frequently (12.2%) or sometimes (33.4%). This means that quite a large number of students in distance education visit the campus either frequently or sometimes and therefore facilities such as buildings, parking space and special equipment should be accessible to them.

### 5.2.2 Differences between the environmental needs and problems of students with impairments from different types of universities

Table 10: Crosstab of visits by students from different institutions to the campus

Options	Residential		Distance	
	f	%	f	%
I visit the campus frequently	13	72.2	19	7.8
I visit the campus sometimes	1*	5.6	87	35.5
I visit the campus (almost) never	4*	22.2	139	56.7
Total	18	100	245	100

\* Please note that 2 cells have less than 5 frequencies

*Chi*-square and significance of difference in visits to the campus by students from different institutions:

<i>Chi</i> -square	df	Significance
65.445	2	P < 0.01

According to Table 10, and as can be expected, significantly more residential students (72.2%) than students in distance education (7.8%) visit the campus frequently. This is obvious because residential students have to attend classes, which is not the case with students in distance education. It is, however, relevant to note that 43.3% of students with impairments in distance education visit the campus frequently (7.8%) or sometimes (35.5%). It is also interesting to note that 22.2% of the residential students indicated that they visit the campus (almost) never. This is most likely to be the case with postgraduate students rather than with undergraduate students, especially master's and doctoral degree students who do not have to attend classes.

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Table 11: The availability of parking space on campus

Availability of parking space	f	%
There is ample parking space on campus	44	17.2
There is a lack of parking space on campus	53	20.7
I do not make use of parking space on campus	159	62.1
Total	256	100

As can be expected and due to the fact that most of the students in the sample are studying by means of distance education, a large number (62.1%) indicated that they do not make use of parking space on campus. However, more than 20% of the students are of the opinion that there is a lack of suitable parking space on campus, while only 17.2% of the students indicated that there was ample parking space. This means that approximately 55% of the students with impairments, who visit the campus frequently or sometimes, are not satisfied with the availability of parking space.

Table 12: Crosstab of perceptions of students from different institutions about the availability of parking space on campus

Options	Residential		Distance	
	f	%	f	%
There is ample parking space on campus	1*	5.9	43	18.0
There is a lack of parking space on campus	4*	23.5	49	20.5
I do not make use of parking space on campus	12	70.6	147	61.5
Total	17	100	239	100

\* Please note that 2 cells have less than 5 frequencies

*Chi*-square and significance of difference in perceptions among students from different institutions about the availability of parking space on campus:

<i>Chi</i> -square	df	Significance
1.635	2	P > 0.05

Although there is no significant difference between the perceptions of students from different institutions regarding the availability of parking space, it is noteworthy that more students from the residential universities (70.6%) indicated that they do not make use of parking space on campus than students in distance education (61.5%). The reason for this could be that residential students make use of public or other forms of transport (provided by parents, friends, etc) to and from campus, and therefore do not need parking space. However, any attempt to explain the phenomenon would merely be speculation.

### 5.2.3 Qualitative analysis of the environmental needs and problems of students with impairments

- Parking

Although most of the students (54.4%, cf Table 9) with impairments indicated that they do not make use of parking space on the campus, there were quite a number of recommendations in this regard. Examples include: “Wider parking bays for the disabled with wheelchairs”; “assistance at parking areas to get out of my car”; “more parking space for disabled students at examination centres”; “parking closer to the library, please”; “provide disabled students with a special parking or university sticker”.

- Buildings and lecture rooms

As far as the access to buildings is concerned, the following recommendations were made by students with impairments: “Lifts for the exclusive use of disabled students”; “ramps for wheelchairs to all lecture rooms”; “study centres” and “examination venues”. The following are a few of the things students with impairments need inside lecture rooms: “Comfortable and safe seating ...”; “high enough tables in lecture and examination rooms to accommodate students with wheelchairs”; “better lighting in examination rooms”.

- Special equipment

One student recommended that special computer software should be provided to students with visual impairments. Quite a few students requested, “transport from the station”; “the bottom of the hill”, and “the gates”.

## Crous/Students with impairments in higher education

It seems that a major problem experienced by students with impairments is their serious need of financial assistance in some form. This is mostly due to the high cost of medication and other medical treatment. Therefore, requests for bursaries, cheaper loans, decreased tuition fees and part-time employment are frequent.

Seeing that most students with impairments, and especially those with physical impairments, find it difficult to move around, they need some form of transportation on campus and/or ample parking space close to buildings frequently visited by them, such as lecture rooms, administration buildings and the library. Parking bays should also be wider than normal and there should be assistance available to help them into and out of their cars. This is particularly important in the case of residential universities where students with impairments have to visit the campus more frequently.

Although access to buildings and lecture rooms for all people is obvious, it seems that certain facilities on campuses are not accessible for people in wheel chairs. Ramps for wheelchairs at all buildings are essential and seating inside lecture rooms should be accessible, comfortable and safe, tables should be high enough to accommodate students in wheelchairs and lighting should be adequate, especially for students with visual impairments.

## 5. Recommendations

The purpose of this survey was to give students with impairments the opportunity to “speak for themselves”. Therefore, the following recommendations are largely based on the suggestions made by the students themselves.

### 5.1 Financial situation

From the above-mentioned, it seems that a major problem experienced by students with impairments is their serious need of financial assistance in some form. These requests and recommendations are primarily associated with the high cost of medication and other medical treatment needed by students with impairments.

- All students with impairments should receive a disability grant, bursaries, cheaper loans with lower interest rates and a longer period to repay loans.

- The university budget should make provision for the needs of students with impairments. Decreased tuition fees, discounts on books and free access to the internet (or reduced rates) are recommended.
- Part-time employment at universities should be earmarked for students with impairments.

## 5.2 Parking and transport

Most students with impairments, and especially those with physical impairments, find it difficult to move around; therefore easy access to all facilities is essential.

- Some form of transport should be provided on campus.
- Ample parking space should be provided close to buildings frequently visited by students, such as lecture rooms, administration buildings, the library and at off-campus examination centres.
- Wider than normal parking bays should be provided for the disabled with wheelchairs as well as assistance to get in and out of their cars (especially in the case of residential universities where students with impairments visit the campus more frequently).
- Students with impairments should be provided with a special parking or university sticker.

## 5.3 Buildings and lecture rooms

Although access to buildings and lecture rooms for all people is obvious, certain facilities on campuses are not accessible for people in wheelchairs.

- Ramps for wheelchairs should be provided at all buildings, lecture rooms, study centres, examination venues, etc.
- Comfortable and safe seating and tables of the correct height which can accommodate students with wheelchairs are necessary.
- Lighting in lecture and examination rooms should be adequate, especially for students with visual impairments.
- Lifts for the exclusive use of students with impairments should be installed.

## 6. Conclusion

It was not the aim of this survey to compare the needs of students with impairments to the needs of other students. Therefore, there was no control group of students without impairments and therefore it was not possible to determine if there is a difference in the perceptions of these two groups. Many of the above-mentioned needs are most probably not only related to students with impairments, but are linked to the needs and problems experienced by students in general.

Findings reported here cannot be generalised as the survey was only done at only three higher education institutions in South Africa. Therefore, further research at all institutions for higher education is needed to determine the specific needs and problems of students with impairments at a particular institution.

The findings must be interpreted cautiously because the return rate of the respondents was only 35%. The needs and problems experienced by the other 65% (the non-respondents) of the total population are not reflected in these findings.

However, the purpose of this research project was to determine the needs and problems of South African students with impairments in higher education. In the past many studies were done regarding students with impairments and recommendations were made for practice without consulting them and thus, the findings did not include their views. Therefore this survey was an attempt to give students with impairments the opportunity to express their views on their circumstances and their needs, and to voice their problems in this regard.

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