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Course Repetition Among Students with Disabilities from Mainstream and Special School Backgrounds at a Tertiary Institution in South Africa

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ABSTRACT Disability is key in influencing one's educational choices, careers options and academic progression. The paper examined the academic progression of students with disabilities from mainstream and special school backgrounds and to establish any relationship between repetition of courses and the type of pre-tertiary school attended. The study targeted 132 registered students with disabilities at the University of Venda. A descriptive design was employed in which questionnaires were administered. Data analysis indicated that fifty-four percent of the participants had their pre-tertiary education in mainstream secondary schools while the rest attended special schools. Almost 3 in 4 participants (74.6%) repeated courses at least once during their studies. Repetition of courses was found to be significantly associated with the type of pre-tertiary attended ($p=0.004$; $p< 0.05$) with the implication that participants who attended regular schools were more likely to cope with the demands of higher education than those who attended special schools.

INTRODUCTION

In education, the issue of disability often becomes the basis upon which parents of children with disabilities make the choice about whether to enroll their children in mainstream education, or special needs school (Lawson et al. 2008; Moran 2015). In a study carried out in Sweden, the Czech Republic and the United States, Berggren et al. (2016) established that students in all three countries spend more time studying to compensate for the disability.

Regarding children attending special needs schools, Moran (2015) points out that though these schools might be much better equipped to deal with each child's specific disability needs including appropriately trained staff to deal with disability related issues, they may turn to perpetrate segregation. Mainstream education, according to this source, provides the opportunity for children with disabilities to receive a better grasp of the real world, and of how to interact with others, which could also breed tolerant attitudes.

In comparing the achievements of special needs teenagers with Down's syndrome educated in mainstream classrooms or in special education classrooms throughout their full-time education, Buckley et al. (2006) established that there were larger significant gains in expressive language and literacy skills for those educated in mainstream classrooms than those in special schools. In the same vein, whilst examining the link between inclusion of students with special educational needs and achievement levels in schools, Farrell et al. (2007), cited in Travers et al. (2010), found that in highly inclusive schools, students with special needs did not have a negative impact on achievement levels. In a recent study, McMahon et al. (2016) also found that academic inclusion was associated with academic achievement, school belonging and school satisfaction.

A study by Livingston (2010) and Wagner et al. (2006) also establishes that considerable gap in achievement in reading, mathematics, science and social studies exists between youth with disabilities and their peers in a general population. Based on a mean standard score of 100 and a standard deviation of 15, fifty percent of youth score at the mean of 100 or above and fifty percent score below, which is in sharp contrast with three-quarters of youth with disabilities who score below the mean across sub-tests (Wagner et al. 2006).

In South Africa, provision of education and training for students with disabilities are either through mainstreaming or through separate special schools, which usually target specific impairments, for example the blind or the deaf. The World Health Organization (WHO 2011) acknowledges that special schools failed to meet the demands and needs of all students with various forms of disabilities. This situation began to change only when legislations started to require students with disabilities to receive education in an inclusive environment (WHO 2011).

At the Institutions of Higher Education (IHE) level in South Africa, mainstreaming and inclusion of students with disabilities has gradually taken off. However, these developments and transformations are failing in a number of ways in addressing issues of access, retention, curriculum and pedagogy (Foundation of Tertiary Institutions of the Northern Metropolis (FOTIM) 2011). According to the Department of Education (DoE 2001), specialized education and support have predominantly been provided for a small percentage of students with disabilities within 'special' schools and classes and has led to most students with disabilities falling outside of the system or been mainstreamed by default.

In either case (special or mainstream schools) challenges for students with disabilities do exist in terms of managing individual's special needs. In a study involving two universities in the Cross River State (Nigeria), Bassey et al. (2006) explored the problems and prospects of administering special needs for students with disabilities in a mainstream or inclusive education. The study reveals that many needs for students with disabilities are grossly lacking or inadequate in tertiary institutions. According to this source, the visually impaired lack eighty-seven percent of Braille machines, the hearing impaired lack 97.5 percent of audiometer and hearing aids and orthopedic students lack eighty-eight percent of electric and manual wheel chairs. This points to the fact that disability and its related consequences place a heavy demand on students with disabilities. Hence, Berggren et al. (2016) are of the opinion that universities need to change their practice in order to provide equal opportunities for all students.

Institutions of higher education lead to better employment opportunities and enhanced life outcomes for all categories of students (Bremer et al. 2007), but if there is stagnation in academic progression or gatekeeping, as it is in the case of students with disabilities in most educational institutions, then this situation warrants an investigation such as this study. Hence, this study sought to examine the academic course repetition among students with disabilities from mainstream and special school backgrounds.

METHODOLOGY

A cross-sectional descriptive design was adopted to examine the academic course repetition among students with disabilities from mainstream and special school backgrounds and to establish if any relationship existed between repetition of courses and the type of pre-tertiary school attended. The design was found suitable because it allowed the current situation to be examined at one point in time while it also attempted to establish relationships among the variables in question (Brink 2008; Vanderstoep and Johnston 2009).

The study was conducted at the University of Venda in the Limpopo province of South Africa. It was one of the previously disadvantaged institutions offering undergraduate and postgraduate programs to all categories of students including those with disabilities. The study population consisted of all students with disabilities that were registered with the Disability Unit of the institution.

Self-administered structured questionnaires were used to solicit information from the study subjects regarding their academic progression and the type of pre-tertiary education received prior to their admission to the institution of higher education in question. Chi-square/Fisher Exact tests were used to determine relationships between some of the key variables. The instrument was adapted and pre-tested to enhance its validity and reliability.

Ethical approvals (SHS/11/PH/06/E0811 and 0765-705-6) were provided by the Research and Innovation Directorate of the University of Venda and the Research Ethics Committee of the Department of Health Studies at the University of South Africa. Written informed consent was obtained from all participants and access to the study site, as well as time and place for the administration of the instrument was negotiated with the head of the Disability Unit of the institution and the participants. Whilst the study was conducted anonymously, participation was voluntary.

Data Analysis

The Statistical Package for the Social Sciences (SPSS) version 19 and the Microsoft Excel were used to perform the analysis of the data. Further analysis was performed on the data by cross tabulating study variables in order to establish whether associations existed between some of these variables. This involved the application of Chi-square/Fischer's Exact Test of associations. In this study, a five percent level (p=0.05) was used as the benchmark for stating if an association was statistically significant or not. Data summary was presented using frequencies and percentages.

RESULTS

Type of Pre-tertiary Education Received and Course Repetition

Of 132 questionnaires distributed, 67 were returned. On the question of type of pre-tertiary education received, 34 (54.0%) participants indicated that they received their pre-tertiary education in mainstream secondary schools while 29 (46.0%) reported that they attended pre-tertiary special schools that were solely designed only for students with disabilities (Table 1). The table also presented responses to the question on the number of times the participants ever repeated academic courses during the course of their studies. About a quarter (n=16; 25.4%) of those who responded said they never repeated any course, 23 (36.5%) indicated that they repeated the courses once, 18 (28.6%) repeated them twice and the rest (n=6; 9.5%) repeated more than twice.

Table 1: Pre-tertiary school and repetition of courses

	Frequency (n)	*Percentage (%)*
Type of Pre-tertiary Institution attended		
Special school	29	46.0
Regular	34	54.0
Total	63	100
Repetition of academic courses		
Never repeated a course	16	25.39
Repeated once	23	36.51
Repeated twice	18	28.57
Repeated more than twice	6	9.52
Total	63	100

Assessment of Relationships

As shown in Table 2a, the Chi-square test of independence indicated a significant relationship between participants that attended different pre-tertiary institutions and the repetition of courses (p=0.004; df=3, FET-value =13.175). This, therefore, implies that students with disabilities who attended regular schools were more likely to cope with the demands of higher education than those who attended special schools. For instance, from the table, 10 (30.3%) of the students who attended regular schools had never repeated a course compared to 3 (11.5%) of those who attended special school. Furthermore, 6 (23.1%) of those who attended special schools repeated their courses more than twice as against none in the case of those from regular schools.

As shown in Table 2b, participants were categorized according to the type of pre-tertiary institution attended and classified according to their preference for teaching and learning support materials received at the current institution. From the table, there was a significant relationship between preference for tertiary education in terms of teaching and learning support materials and the type of pre-tertiary institution attended (p=0.037; df=2, FET value=6.607). It therefore, implies that the participants' preference for teaching and learning support materials in the institution was influenced by the type of pre-tertiary education received. From the table, whilst 18 (62.1%) students from special school rejected the notion

Table 2a: Associations between repeating courses and the type of pre-tertiary institution

Type of pre-tertiary institution	*Repetition of courses in IHE*				*Total*	*Test statistics*
	Never repeated	*Once*	*Twice*	*More than Twice*		*Fischer's Exact Test (FET)*
Special school	3 (11.5%)	7 (26.9%)	10 (38.5%)	6 (23.1%)	26 (100.0%)	FET=13.175
Regular school	10 (30.3%)	16 (48.5%)	7 (21.2%)	0 (0.0%)	33 (100.0%)	p=0.004, df=3
Total (% within)	13 (22.0%)	23 (39.0%)	17 (28.8%)	6 (10.2%)	59 (100.0%)	

Table 2b: Type of pre-tertiary institution and teaching/learning support materials

Type of pre-tertiary institution	*Teaching/learning support materials are better in IHE than in the pre-tertiary institution*			*Total*	*Test statistics*
	True	*False*	*The same*		*Fischer's Exact Test (FET)*
Special	7 (24.1%)	18 (62.1%)	4 (13.8%)	29 (100.0%)	FET=6.607
Regular	14 (45.2%)	9 (29.0%)	8 (25.8%)	31 (100.0%)	p=0.037, df=2
Total (% within)	21 (35.0%)	27 (45.0%)	12 (20.0%	60 (100.0%)	

that teaching/learning support materials are better in IHE than in the pre-tertiary, 14 (45.2%) from regular school answered in the affirmative.

In Table 2c, participants were categorized according to the type of pre-tertiary education received and their preference for disability services in the current institution of higher education. The result indicated a significant relationship between preference for disability services in the institution and the type of pre-tertiary institution attended (p=0.000; df=2, FET-value=20.092). It therefore, implies that participants' assessment of services received from the disability unit is influenced by the type of pre-tertiary institution they attended. In addition, almost 2 in 3 participants (62.15%) from special school rejected the notion that disability services are better in the IHE than in pre-tertiary institution as against 22 (68.8%) from regular school that answered in the affirmative.

DISCUSSION

The study examined the academic course repetition among students with disabilities from mainstream and special school backgrounds and established if any relationship existed between repetition of courses and the type of pre-tertiary school attended. In this study, over half (54.0%) of the participants had their pre-tertiary education in the mainstream secondary schools while the rest (46.0%) had theirs in special schools. According to Moran (2015) and Lawson et al. (2008), the issue of disability often becomes the basis upon which parents of children with disabilities make the choice about whether to enroll their children in mainstream (regular) education, or special needs school. Choices to educate a child in mainstream (regular) education, or special needs schools have got their pros and cons because the academic progress in the type of pre-tertiary school attended may be influenced also by the type and severity of impairment that a child has.

On the question of special versus mainstream schools, FOTIM (2011) noted in their study that many high performing individuals came from special school environments where they were protected with limited life exposure unlike their counterparts from mainstream school environments who had the disadvantage of not having specialized individual attention assistive devices. This suggests that students coming from special schools experienced both social and academic life in an adapted environment suitable for their various disability needs unlike those from the main stream schools. In examining the link between inclusion of students with special educational needs and achievement levels in schools, Farrell et al. (2007) concluded that in highly inclusive (mainstream) environments, students with disabilities did not have a negative impact on achievement levels. According to these authors, this model ideally allows educational provision for students with disabilities to be neither rigidly segregated from their peers nor 'dumped' in mainstream classes, but have a precise mix that is customized to the characteristics of individual students rather than being

Table 2c: Type of pre-tertiary institution attended and preference of IHE disability services

Type of pre-tertiary institution attended	*Disability services are better in the IHE than in pre-tertiary institution*			*Total*	*Test statistics*
	True	*False*	*The same*		*Fischer's Exact Test (FET)*
Special	6 (20.7%)	18 (62.1%)	5 (17.2%)	29 (100.0%)	FET=20.092
Regular	22 (68.8%)	3 (9.4%)	7 (21.9%)	32 (100.0%)	p=0.000, df=2
Total (% within)	28 (45.9%)	21 (34.4%)	12 (19.7%)	61 (100.0%)	

decided on a whole group basis. This is because impairment-specific conditions should inform the establishment of education-specific institutions (Gregorius 2016), but the cost of introducing such a model can be very prohibitive, especially in the developing countries.

On the question of academic progress of the participants, their responses were that 23 (36.5%) repeated the courses once, 18 (28.6%) repeated them twice and the rest (n=6; 9.5%). What is very disheartening to note in this study is that only about a quarter (n=16; 25.4%) of the participants that never repeated any of their academic courses irrespective of whichever schooling background they came from. This implies that about 3 in every 4 (74.6%) students with disabilities in this study repeated a course, at least once. Repetition in any form can be demoralizing especially for students with disabilities. It must also be noted that these are students that have to compete with their non-disabled counterparts in a mainstream tertiary institution.

In a study to determine factors that hinder learning disability students in their academic achievements and grade retention, Broder et al. (1998) found that seventy-five percent of students with learning disabilities require extra time to study and heavy course workload as well as teaching methods hinder them in their learning process. Hence, they are compelled to spend more time studying to compensate for their disabilities (Berggren et al. 2016).

In this regard, Wolanin and Steele (2004) contend that students with disabilities do not receive the same level of academic preparation in education as their peers without disabilities, and besides experiencing high attrition rate, they also do not go on to higher education in larger numbers. In another study, a higher proportion (84%) of participants stated that their disability had some impact on their studies with just over half of these feeling that it had a major impact to the extent that forty-seven percent of the participants had considered withdrawing from their course (Brunton and Gibson 2009). These findings suggest that many students with disabilities may not realize their career goals if such high proportion of participants experience difficulties and with others thinking of withdrawing. It could also be attributed to the failure of their universities to provide support for them (Berggren et al. 2016).

Furthermore, the study established significant relationships between the type of pre-tertiary institution attended and the repetition of courses ($p=0.004 <0.05$) as well as one's preference for tertiary education in terms of learning and teaching support received ($p=0.037<0.05$). Even though regular schools are not purposely built for students with disabilities (Oduntan 2004; FOTIM 2011), these findings therefore, imply that students with disabilities who attended regular schools were more likely to cope with the demands of higher education than those who attended special schools. It can be inferred that exposure in regular schools gives a sense of reality of inclusive education system parallel to what tertiary institutions offer. It also implies that students with disabilities from regular schools seem to acquire some coping skills needed in institutions of higher education. Above all, they might also be more used to the style of teaching methodology practiced in mainstream tertiary institutions than their counterparts from special schools. Based on the aforementioned reasons, students from such regular schools had a lower repetition rate than those from special schools.

Though this study established that regular and special schools have their impact on students' performance, one is inclined to agree with Blackorby et al. (2004) who argue that the academic achievement of students with disabilities is the result of a complex interplay of many factors. Besides the type of pre-tertiary school attended, factors such as, type of disability and functioning, socioeconomic status of family, environmental conditions, teaching approach and support are also key functions in the achievement of learning outcomes by students with disabilities (Ebersold 2012). To emphasize this claim, Dryer et al. (2016) established in their study that measures of social relationships and self-efficacy were significant explanatory variables that could clarify the variance in academic achievement. This therefore, highlights the importance of examining other factors that can influence academic attainment of students with disabilities.

CONCLUSION

This study established that about seventy-five percent of the participants from both mainstream and special schools repeated their aca-

demic courses at least once at the University of Venda. It also found a significant relationship between the type of pre-tertiary institution attended and the repetition of courses in the institution of higher education ($p=0.004 < 0.05$). This implies that students with disabilities who attended regular schools were more likely to cope with the demands of higher education than those who attended special schools. This finding, therefore, goes to strengthen the case of those who advocate for fully inclusive education system for all categories of students. Finally, it must also be acknowledged that students with disabilities have individual strengths, weaknesses and the potentials to contribute positively to the development the society they all live in.

RECOMMENDATIONS

The study, therefore, recommends that barriers, in such as inflexible curriculum, teaching methodologies and un-adapted infrastructure and physical environment must be removed at both tertiary and pre-tertiary levels in educational system and environment for all students with disabilities.

LIMITATIONS

The study was carried out among students with disabilities at only one institution of higher education. Hence, these findings cannot be generalized.

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