

Support services within inclusive education in Gauteng: The necessity and efficiency of support

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South Africa became a democratic country when the new Constitution advocating equal human rights for all citizens was signed. This was followed by the signing of section 24, after which the public school system undertook to take care of the dispensation of equal opportunities for all learners through inclusive education. In the context of the South African public primary school system, this article addresses the question of whether the support systems are functioning adequately and efficiently in public primary schools to provide the necessary support. The research methodology of the study was based on a self-administered questionnaire highlighting the most frequently occurring barriers to learning; the role, accessibility and type of specialised help available to public schools as well as the assistance rendered by the institutional and district support teams. The article presents a brief account of the history that gave rise to inclusive education and provides a review of the literature review on barriers to learning as well as education support systems. The most striking findings in the research includes overcrowded classrooms. The commonest barrier to learning is Attention Deficit Hyperactivity Disorder (ADHD) (DSM- V) and emotional barriers that can be directly linked with family problems. While institutional-level support teams are functioning effectively, this is not the case with district support teams. Special schools and resource centres are not being fully utilised by Gauteng public primary schools. The inclusive education policy at public primary schools needs to be revised in order to accommodate learners with barriers to learning. Observations have shown that most public primary schools in Gauteng are on a gradual path towards the implementation of inclusive education assisted by support systems.

Keywords: Department of Education; district support teams; institutional-level support teams; Gauteng government primary schools; inclusive education; learners who experience barriers to learning; resource center; support; support systems.

1. Introduction

There are numerous challenges facing education in the South African context and, to overcome these, the Department of Education proposes the placing of support systems in public primary schools. To achieve this objective in the context of inclusive education, a borderless community needs to be established – free of discrimination towards learners who experience barriers to learning (Pahad 2007:7). This statement has given rise to the research questions of whether support systems in public primary schools is adequate and effective, and whether these

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systems are functioning at an effective level, as to provide the necessary support to learners who are experiencing barriers to learning.

Motshekga (2010:2) emphasises the point that, without a new mind-set and the right support systems in place, inclusive education will remain no more than an idealistic education system. Thus, one of the tasks of the Department of Education is to successfully change the character of our schools and to ensure the establishment of inclusive education, which is due to be implemented by 2019, with the necessary support systems in place.

The focus of this article is an exploration of the effectiveness of the current education support systems in Gauteng public primary schools. The article endeavours to make a contribution to the knowledge base of barriers to learning and support systems in the South African context, with the specific aim of describing the effectiveness of the support systems. The premise of the article is the assumption that the support systems are indeed in place in Gauteng public primary schools.

The aim of this article is to report on the investigation into the occurrence of barriers to learning and the effectiveness of support systems such as the institutional-level support teams, the district support teams, special schools, and resource centres, as well as specialist support within public primary schools in Gauteng. In addition, it explores whether the inclusive education policy at public primary schools does need revising to accommodate learners who experience barriers to learning.

This research is necessary in the light of Shavhani's (2004) research into support systems in South Africa, which points to the general absence of support systems in remote areas like Thohoyandou in Limpopo where, in the past, the emphasis was on white education. The findings show that these areas have suffered a serious shortage of resources and facilities, leading to negative attitudes of teachers towards learners who experience barriers to learning. Consequently inclusive education could be jeopardised and learners who experience barriers to learning in mainstream classrooms could be deprived of adequate support.

To ensure that South Africa can continue being competitive in the world arena, the Department of Education has no choice but to keep improving and transforming. International experience relating to inclusive education has already been felt in South Africa. There are several documents published which can attest to this such as the White Paper Six: Special Needs Education (Department of Education (DoE) 2001) which outlines a strategy for transforming the education system so that it can be more inclusive of learners with diverse support needs. In addition the *Guidelines for full-service/inclusive schools* issued in 2009 outlines the qualities/criteria for inclusive schools, and describes aspects of school management; whole school development; collaboration; professional development; classroom practices, support provision; curriculum and assessment; resources; physical accessibility; family partnerships, communities and district networks. Although, in our context, inclusive education is unique, human rights have brought an awareness of inclusive education after the United Nations began to turn its attention to the human rights of people with disabilities and the rights of children. Avramidis, Bayliss and Burden (2000:22) also corroborate the fact that the United Nations Educational, Scientific and Cultural Organisation has given its support to inclusive education, thus stimulating an awareness of this. For a successful exploration of the above-mentioned question, a study of the literature has been undertaken to seek clarity regarding concepts relating to inclusive education, barriers to learning, and specialised support systems. These aspects will now be discussed.

2. Literature Review

When the matter of inclusive education is scrutinised, it is hardly difficult to observe that the United States of America leads the way in the field of inclusive education and can serve as an example not only to South Africa but to the rest of the world (Du Toit & Forlin 2009:647). It is

America that has changed mainstream education to inclusive education. This entails ensuring that all learners will have access to being taught the same curriculum with the same content, standards and achievement, within an inclusive class (Du Toit & Forlin 2009:647).

The aim of inclusive education is to identify and reduce barriers. Kapp (1994:377) describes the term, “barriers to learning” as a generic term referring to a heterogeneous group of deviations. These manifest in significant problems that arise with the acquisition of mathematical skills or listening, speaking, reading, writing and reasoning skills. The term, “learners with barriers to learning” also refers to a group of learners with physical, sensory, intellectual or various barriers requiring specialised apparatus or teaching support in order to give them access to the curriculum and to allow them to participate effectively in the learning process. In addition, the National Committee on Education Support Services (NCSNET) and the National Committee on Education Support Services (NCESS) issued a research report in 1997 where following barriers to learning in the South African context were identified namely socio-economic deprivation; barriers which arise from impairments such as physical, cognitive, sensory, developmental and learning impairments; negative attitudes; inflexible curriculum; inappropriate languages; inadequate support services, policies and legislation and lack of parental involvement and recognition (Swart and Pettipher 2011:21-22). These barriers do have an impact on the emotional, behavioural and social well-being of the learners. According to Prinsloo and Gasa (2011:490), the reasons for behavioural problems are many and originates in the disruption of family life. As a result lack of warmth, acceptance and basic needs causes physical and emotional insecurity and low economic status influences the lives and behaviour of children.

For successful execution/provision of support to mainstream schools, cooperation is an indispensable component. Referring to this, Tomlinson, Brimijoin and Narvaez (2008:2) point out that parents must play a more central role in the school, since teachers have to coordinate the parents of learners with barriers to learning in particular, to assist their children to learn. Cooperation and communication between parents and the school is one of the most important forms of support (Pottas 2005: 35). McLeskey and Waldron (1996:151) point out that, if there is cooperation between parents and learners who experience barriers to learning and the teachers concerned, it improves the understanding and expectations of the parents regarding the teachers’ position and the support that is actually available for their children.

Principals and teachers cannot be expected to address the problem on their own but, with the help of parents and the community, problems can actually be effectively addressed. The community needs to be similarly involved where possible and, there is no doubt about the fact that the expertise of more specialised services including psychologists, speech therapists or audiologists is indispensable. It should form part of the support system of the school to provide support to learners who experience barriers to learning and to support their parents and teachers.

2.1 Teaching support systems

Support systems in inclusive education comprise professional persons who use their advice and skills to promote inclusive education. They also support all learners experiencing barriers to learning, thereby helping them to develop their full potential (Lacey & Lomas 1993: 11). Balshaw (1991:24) is of the opinion that support systems should facilitate change in all centres of learning as well as within the community. According to Watts (1990:12), various support systems include the following: those within the school where the teachers support the learners, teachers who support one another, and instances where teachers and learners are supported by a source outside the school. Muthukrishna (2002: 16) maintains that, if support systems focused on supporting teachers instead of addressing barriers to learning and development, learners would benefit as a consequence. Next, there will be a brief discussion of the main role players within support systems.

2.2 The institutional support team

As part of the Department of Education's plan for getting support to function effectively within inclusive education, institutional-level support teams are being introduced in public primary schools. And, as part of their task, they are required to help find solutions and approaches to problems, develop multilevel teaching in the classroom, provide training and support of teachers and develop a policy regarding the diversity of the school community. The Department of Education (2009:11) underscores this in its statement that there should be an internal support team within the institution itself and that this team should be responsible for liaising with the district support teams as well as other support systems involved at the school.

This institutional support team is required to study reports submitted by teachers regarding barriers identified in learners, follow these up by helping to develop a programme for the teachers and the parents and, where necessary, also implementing support in the classroom. All support that is provided, must be noted down in a formal report by the institutional support team for further follow-up action.

2.3 District support teams

The Department of Education desires to expand the effectiveness of support even further and is instituting district support teams to evaluate other programmes – among other things, to diagnose their effectiveness and to suggest improvements. The district support team's support staff will also be trained to provide support to all teachers who are working in mainstream classrooms and who face learners with barriers to learning. It is an additional part of their role to support these teachers and to help to address these barriers to learning (Department of Education 2005a: 19).

The district support teams are also expected to follow up all cases referred to them by the institutional-level support teams, and to provide the appropriate feedback. These teams should function as a source of support by providing the services they offer to schools and the community (Muthukrishna & Schoeman, 2000:325).

2.4 The role of special schools as resource centres

The Department of Education proposes that the role of special schools will be to provide better services to learners experiencing barriers to learning. Special schools must be integrated into district support teams to enable them to give specialised help, especially when addressing cases relating to curriculum assessment for mainstream schools in the district of the resource centre (Department of Education 2007).

As part of the purpose of resource centres, the Department of Education expects formal support to be put in place and that services such as those of psychologists and therapists will be made available on the premises. It will be the duty of the district support team to control the integration between the special school or resource centre and the community-based support system by involving the mainstream schools in the vicinity of the specific resource centre, and other support systems that are already functioning in the vicinity.

The Department of Education considers making a success of training as cardinal importance and it would like to make use of the trained staff at the special schools or resource centres to train teachers at the mainstream schools (Department of Education 2005b).

2.5 Specialist support

Teachers maintain that, if the aim of inclusive education is to be successful, support systems must be available. If, however, parents are not prepared to pay for support, the aim will not be

realised (Bartlett, Weisenstein & Etscheidt 2002: 57). Hornby, Atkinson and Howard, (1997:101) are of the opinion that this support includes a speech therapist, a psychologist, an occupational therapist as well as a remedial teacher who is prepared to provide the other teachers with in-service training.

According to Landbrook (2009: 39) the best support experienced by a learner with barriers to learning is to be assisted by a specialist in the field of the barrier. However, this is not always possible, due to limited financial and human resources, as well as accessibility. Also, the weak economic situation in which countless parents in South Africa find themselves renders them unable to take their learners privately for specialised help and, for this very reason, it is of the utmost importance that support systems that can be implemented by the schools themselves should be of such a standard that they function effectively to give these learners the best possible support.

2.6 Informal class helpers

Hopkins, Cohn, Campbell and Matais (1994:93) found that class helpers can work very effectively, lessen teachers' loads and support both teachers in mainstream classrooms and learners experiencing barriers to learning. Class helpers can be of great value when teachers have to adapt the lesson plan for the learner or learners who experience barriers to learning. The teacher can then deal with the curriculum lesson with the class, while the class helper covers the adapted lesson with the learners who experience barriers to learning – which will benefit them and produce better results. In this way, the other learners in the class are in no way disadvantaged because the pace at which the work is explained is not at all affected.

There has been greater clarity regarding the formulation of the problem statement in the current research with the aid of a clear definition of inclusive teaching concepts from the literature – which facilitates the problem statement now to be discussed.

3. Problem Statement

Criticism from the teaching corps in South Africa that the support systems in the inclusive education system were not functioning as desired developed a concern and contributed to the awareness of the problem. The concern was manifested and highlighted at the workshop held by the Department of Education on 6 October 2006. During the workshop, the assumptions regarding the deficiencies in education research in South Africa were pointed out, namely how barriers to learning are identified and how the correct, necessary support is being provided. This is a matter of whether district support teams and institutional-level support teams are in place and whether there is intersectoral collaboration (National Research Foundation 2006:8). The current research has investigated information on the response rate recorded by comparable studies in the field of inclusive education (Maphula 2005; Shavhani 2004 & Walton 2006). These studies were undertaken with relatively small sample sizes and low response rates.

Over the years, the researchers Gugushe (1999); Hyam (2001); Kriel (2001); Swart, Engelbrecht, Eloff, Oswald and Pettipher (2004 quoted in Garson, 2006:3) have also emphasised the serious need to launch a study to establish whether there is sufficient support in place to successfully meet the needs of teachers in mainstream classrooms.

Most of the research endeavours to create a generalised picture across all the differences. In order to sketch an accurate picture giving all the avenues of support in Gauteng's public primary schools, the existing research needs to be supplemented with studies emanating from more homogeneous research terrains. Existing studies reflect the experience as well as the attitudes of educators, together with one or more of the role players towards the implementation of inclusive education

No evaluation of the progress with implementing inclusive education in public primary schools within South Africa, as observed and experienced by principals of primary schools, has yet been researched and published. Thus school principals' experiences of specialised support in the inclusive education dispensation in public primary schools are of cardinal importance. The current research should therefore contribute to filling this gap.

The aims of the research can be formulated from the vantage point of the problem statement.

4. Aims

The aim of the research was to describe – by collecting data from public primary schools in Gauteng – the position taken in White Paper 6 (Department of Education 2001:9), which is that inclusive education, assisted by support systems, ought to be a regular part of the education system. Furthermore, there was a special effort to investigate whether all learners in every class are able to attain their full potential and whether all the necessary support systems are actually in place to support all learners, regardless of whether they experience barriers to learning or not. Although the investigation was confined to a mega district in Gauteng, the results should still provide a good indication. The reason for this is that the province of Gauteng represents a large proportion of South Africa's public primary schools.

To be able to address the preset research objectives, an indication of school principals' experience of successful implementation of inclusive education was obtained, measured by the availability and effectiveness of support services. This was determined with the aid of a quantitative research approach, followed by qualitative responses. The research methodology, statistical analysis strategy and analysis results, as well as the findings, are discussed next.

5. Research Methodology

The assumption in inclusive education is that all the role players cooperate with the required support systems that are in place. This view is endorsed by Etschiedt (2007:9), who maintains that inclusive education can succeed only if all the role players cooperate with the necessary support systems in place <http://www.uni.edu/ceo/inclusion> [3 March 2007].

In this research, the aim of the literature study was to explore the context of support systems in inclusive education in South Africa with the focus on Gauteng public primary schools. It was followed by both a quantitative and a qualitative investigation (Fouché 2002: 106-108), also called the mixed model research.

The quantitative research (Bodgan & Bilken 2003:25) is undertaken with a previously compiled questionnaire and sent by e-mail via the internet to public primary schools in a megadistrict of Gauteng. The district included Johannesburg North, Johannesburg Central and Johannesburg South, and a comprehensive sampling strategy was adopted. Where there was a lack of computer facilities, the questionnaire was distributed through the post and was then completed by the various principals of public primary schools in Gauteng. In cases where the questionnaires sent by post were not returned, attempts were made to contact those schools (especially those schools that did not have Telkom facilities) by cellular phone. Questionnaires were then verbally completed in an effort to establish a representative research outcome. The questionnaire was accompanied by a comprehensive information leaflet in which all the instructions were clearly explained and the precise expectations of the questionnaire stated. This helped to eliminate communication difficulties. The qualitative method was undertaken to validate and supplement the quantitative investigation and thus took the form of the principals' responses from public primary schools in Gauteng.

6. Empirical Research

6.1. *Measuring instrument*

Based on the information gained from the literature review, a questionnaire was designed as a measuring instrument to measure the inquiry into state of support and accommodation of learners with barriers to learning in mainstream, public primary schools. The questionnaire was compiled in English, which is the language of instruction, and on the assumption that all the respondents would be able to understand it and answer the questions accordingly. Respondents were required to indicate the barriers to learning that occurred most frequently, as well as the number of learners they taught per class and the number of learners per class who experienced barriers to learning, as well as the number of staff members available as part of the school support system at the school. Respondents had to rate education support systems to schools as well as the level of support provided to learners experiencing barriers to learning on a Likert scale of 1 (indicating a perception of “it is done or implemented regularly”) to a score of 5 (implying that “it is never done or implemented”).

6.2. *Population and test sample*

The study was directed to mainstream public primary schools in the Gauteng province of South Africa. It aimed to evaluate the state of involvement and support to learners with barriers to learning in public schools across the broad economic spectrum and population composition of Gauteng. Principals of sampled schools were viewed as units of the test sample. The investigation included 129 of Gauteng’s public primary schools in the districts Johannesburg North, Johannesburg Central and Johannesburg South, where a comprehensive experimental strategy was adopted. Permission was granted by the Chief Director: Information and Knowledge Management in head office of the Gauteng Department of Education. The district directors of the various districts also gave their permission.

6.3. *Reliability and validity*

Reliability and internal consistency of the measurement scale, measuring particular joint questionnaire group items/perceptions which contributed in describing specific aspects of barriers to learning, were ascertained and validated. Collective measure is then calculated as the average response to questionnaire items in a particular questionnaire group items/perceptions (called a barriers-to-learning score). A Cronbach’s alpha value is calculated as part of the analysis for each construct. A Cronbach’s alpha value in the region of 0.7 (or greater than 0.7) is considered to be a good indication of internal consistency. (Perception of the degree of individual support available to learners with barriers to learning could serve as an example).

6.4. *Statistical techniques*

6.4.1. *The statistical analysis strategy*

The statistical processing of the inclusion data was carried out with reference to an analysis strategy that formed part of the research methodology of the quantitative component of the mixed model research.

The various steps of the analysis strategy are progressively listed with a short motivation for the objective of each analysis technique. In the following subsections the principles underlying each statistical technique will be explained in greater detail. Related concepts will also be briefly mentioned.

The analysis strategy included the following statistical analysis techniques:

- *Combined one-way frequency tables.* Combined frequency tables are calculated for the subsections of the barriers to learning. This was done by grouping one-way frequency tables of questionnaire items together within a subsection in a single combined frequency table. The objective was to obtain an initial summarising image of the response pattern of respondents regarding the relevant aspect of barriers to learning.
- *Two-way frequency tables of cross-qualification.* In order to investigate the mutual relation between certain questionnaire items, two-way frequency tables for specific pairs of questionnaire items were calculated.
- *Chi-square tests.* On each of the above-mentioned frequency tables, Chi-square tests were done. The intention was to determine whether the response pattern of the respondents is the same across the categories of a questionnaire item (one-way); or whether the case of two-way frequency tables, or the response pattern across a combination of categories of two questionnaire items is the same or differs.
- *Analysis of variance.* Analysis of variance, an additional statistical technique, was conducted on these barriers-to-learning scores (that ‘measure’ the perceptions of respondents in terms of certain aspects of barriers to learning) to establish whether factors or, that is to say, other attributes of respondents, have a significantly statistical influence on their perceptions of certain aspects of barriers to learning.

6.4.2. The statistical software package

The statistical software package used to statistically analyse the inclusive data, is the SAS (Statistical Analysis System) software package. Version 9.4 of this package was used.

6.4.3. The qualitative component of the research design: response feedback

Personal interviews are conducted, using a series of standardised open questions, by asking all the participants the same questions. This means that the questions encourage participants to explain and to give their own perspectives and opinions in detail, instead of just “Yes” and “No” answers (ecdlevel4.wikispaces.com/file/view/Studiegids+4_119467+edited.doc).

The intention of the response feedback was to confirm and validate the empirical research results, thus reinforcing the research. These were repeatedly incorporated into the empirical results, as validation (or negation) of the findings of empirical results.

7. Findings

The perception that most commonly emerges when there is a reference to a learner who is experiencing barriers to learning in an inclusive education classroom, is that the learner is experiencing a barrier to learning in terms of intellectual or auditory or possibly a physical disability. Generally speaking, the first perception to arise is not that barriers like unsafe travelling to and from school, malnutrition, or family or parental involvement could be the causes of barriers to learning.

Table 1: The incidence of barriers to learning

Frequency distribution of the incidence of barriers to learning (More than one barrier was indicated by 129 respondents.)				
Barriers to learning	Frequency	Percentage of total responses (1797)	Percentage of total respondents (129)	Ranking according to total response %
Hyperactivity	123	7.30	95.34	3

Frequency distribution of the incidence of barriers to learning (More than one barrier was indicated by 129 respondents.)				
Barriers to learning	Frequency	Percentage of total responses (1797)	Percentage of total respondents (129)	Ranking according to total response %
Emotional barriers	124	7.40	96.12	1.5
No parent involvement	119	7.10	92.24	4
Family problems	124	7.40	96.12	1.3
Unsafe travelling to school	110	6.50	85.27	6
Malnutrition	115	6.80	89.15	5
Social deprivation	108	6.40	83.72	7.5
Total	823			

Interpretation of results

According to Table 1, the most common barriers to learning are emotional disabilities and hyperactivity and, directly linked with these, family-related emotional problems, lack of parental involvement, social deprivation and unsafe travelling to and from school. The results correspond to findings by Holz and Lessing (2002:103), namely that hyperactivity is one of the most generally occurring barriers among learners per class. Emotional barriers link up with this, in that the 129 responses constituted the percentage of 96,12%.

A striking result was that 110 of the 129 respondents at primary schools report that learners feel unsafe when travelling to and from school. The percentage of learners who feel unsafe while travelling to and from school, is 85,27%. The numbers are disturbing, but are ascribed to South Africa's high crime and violence figures: this country ranks second in the world for murders committed per annum (Smith 2010:7). The quantitative research is supported by the qualitative research, in which a respondent said the following: "There are 846 learners at my school and more than half of the learners in the school experience stress and are frightened while travelling to and from the school. Those who walk to school fear being attacked along the way, either for their cell phones or for the small change they are carrying. Girls are particularly anxious about the possibility of being raped if they have to walk past a stretch of veld. Learners who travel by taxi are very nervous about having an accident because many of them or their family members have, at one stage or another, been involved in a taxi accident." This statement is a reality in the South African context.

Malnutrition as a barrier is set at 89.15%. The qualitative research supports the fact that ten of the respondents said that the need for food is far greater than that realised by the public. They indicated that the minimum number of learners that form part of the feeding scheme is 100, and the maximum could even go up to 1300 learners per school in an economically disadvantaged area. The average per school is between 400 and 600 learners who receive food at school on a daily basis. The food is provided by a feeding scheme and, in countless cases, it is the learner's only meal for the day. Next, the percentage of learners per class who experience barriers is indicated.

Table 2: Learners per class who experience barriers to learning

2.1: Proportion of learners with barriers to learning in a class				
Learner	Frequency	Percentage	Cumulative Frequency	Cumulative percentage
<5%	45	35.43	45	35.43
6-9%	20	15.75	65	51.18
10-14%	11	8.66	76	59.84
15-19%	3	2.36	79	62.20

2.1: Proportion of learners with barriers to learning in a class				
Learner	Frequency	Percentage	Cumulative Frequency	Cumulative percentage
20-24%	9	7.09	88	69.29
25-29%	6	4.72	94	74.02
30-39%	6	4.72	100	78.74
40%+	27	21.26	127	100.00

2.2 : Average number of learners per class				
Pupils per class	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage
1-19	4	3.13	4	3.13
20-39	54	42.19	58	45.31
40-59	63	49.22	121	94.53
60-79	5	3.91	126	98.44
80-98	1	0.78	127	99.22
<98	1	0.78	128	100.00

Interpretation of results

Table 2.1 shows that 51% of respondents indicated that learners with barriers to learning constitute up to 9% of the class. However, some of the respondents indicated that learners with barriers to learning made up more than 40% of the class – which is a considerable proportion of the class. Table 2, section 2.2, also indicated that 91.41% of the respondents cope with between 20 and 60 learners per class, of which, according to statistics, 40% are learners who experience barriers to learning. This result shows yet again how important support in mainstream public primary schools is.

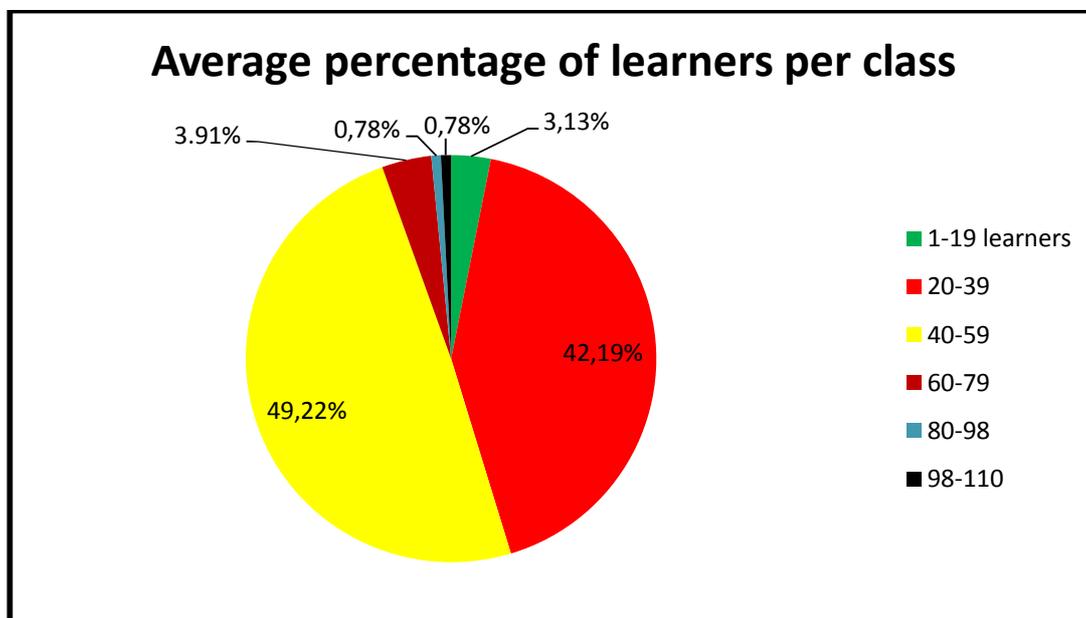


Figure 1: Average number of learners per mainstream class (table 2 section 2.2)

Interpretation of results

The graphic representation of table 2.1 illustrates that the number of learners per classroom, who experience barriers to learning, is disturbingly higher than expected. Thus table 2.1 and 2.2 (and figure 1) – can be interpreted as showing that 49.22% of classes have between 40 and 59

learners per class and that 21.26% of the respondents indicated that more than 40% of the class accommodate learners who experience barriers to learning . Large classes could therefore contain a high proportion of learners who experience barriers to learning. This means that, every day in class, one teacher is confronted with 40% of learners who experience barriers to learning: this can have a negative influence on teaching.

Table 3: Existing support systems within inclusive education

Combined frequency table in respect of Inclusive Education Support Systems at schools						
Questions 3.1-3.6 focus on support	Implementation level at schools					Total
Frequency Cell Chi-square	always	often	Not so often	seldom	never	
3.1 Parent networks for support and communication exist.	2 4.5477 1.56	6 12.099 4.69	23 6.4629 17.97	69 77.667 53.91	28 0.9456 21.88	128
3.2 Special school or resource centre staff support the school.	0 8.0508 0.00	2 18.677 1.56	16 13.435 12.50	30 1.0152 23.44	80 63.89 62.50	128
3.3 Supportive, cooperative community groups exist.	3 3.1687 2.34	15 2.4994 11.72	42 0.2563 32.81	52 29.274 40.63	16 9.25 12.50	128
3.4 Community groups support the school.	6 0.5224 4.69	7 10.677 5.47	12 18.552 9.38	58 43.711 45.31	45 3.8362 35.16	128
3.5 Institutional support teams provide effective Support.	5 1.1561 3.91	36 8.1017 28.13	72 28.3 56.25	12 6.7336 9.38	3 27.908 2.34	128
3.6 District support teams provide effective support.	2 4.5477 1.56	6 12.099 4.69	35 0.3805 27.34	37 5.8009 28.91	48 6.1299 37.50	128

Statistic	DF	Value	Prob
Chi-square	144	3781.2060	<.0001

Interpretation of results

It was possible to obtain an indication of respondents’ perceptions regarding each of the dimensions of schools’ support systems that were addressed in the questionnaire. If one bears in remembers that a score close to 1 indicates a perception of “it happens often ” – up to a score of 5 that implies that “it never happens”, one could deduce that respondents have the following perceptions:

- Regarding parental network support, 120 of the128 respondents who responded to the question, said that “there was often support” ranging to “there was never any support”. As to the question of whether resource centre staff made supportive relationship systems available to the school, 110 of the respondents indicated that it “seldom or never happens”.
- Community support was less readily available; the majority of responses were 4 and 5.
- Institutional teams’ support was more evident but also in no way up to standard. The district support teams did not feature at all in the way Gauteng’s public primary schools expected them to. Low percentages were testimony to this. This is unacceptable if there is to be effective support. White Paper 6 states that the primary function of district-based support teams is to build capacity of schools ... by evaluating and supporting teaching and “to

recognise and address severe learning difficulties and to accommodate a range of learning needs” (DoE 2001: 47).

Table 4: Scope of support provided

Level of support provided to learners who experience barriers to learning						
Support services	Levels of support					Total
Frequency Cell Chi-square Row Pct	always	often	Not so often	seldom	never	
4.1 Scope: Specialised support	1 1.3413 0.79	2 8.3682 1.59	5 4.4261 3.97	26 0.0431 20.63	92 5.9021 73.02	126
4.2 Scope: Family members resources or support	2 0.3517 1.57	8 1.4069 6.30	14 0.1774 11.02	40 5.9132 31.50	63 1.132 49.61	127
4.3 Scope: Voluntary learner assistants	3 0.0004 2.36	9 0.8083 7.09	14 0.1774 11.02	46 12.817 36.22	55 4.0263 43.31	127
4.4 Class helpers	7 5.2937 5.56	32 33.115 25.40	28 19.577 22.22	19 2.4112 15.08	40 13.852 31.75	126
4.5 Local hospitals: sources or support	2 0.3383 1.59	6 3.0269 4.76	4 5.701 3.17	11 9.5487 8.73	103 13.918 81.75	126

Statistic	DF	Value	Prob
Chi-Square	20	164.8563	<.0001
Monte Carlo Estimate for the Exact Test			
Pr >= ChiSq 164.85	0.0	t < 0.0001	

Interpretation of results

The support differs significantly as indicated in Table 4, and depends on the type of support involved (exact probability [Chi-sq = 164.86 < 0.0001]. Percentages in table 4 show that significantly more regular support is provided in the form of assistants in classrooms and support in hospitals. The percentage indicated for the support of informal classroom assistants in public primary schools is 30.96%. The fact that respondents who confirm the fact that retired family members voluntarily and regularly support learners who experience barriers to learning corroborates the fact that qualitative research validates this.

Table 5 sketches the position in respect of staff composition at inclusive education mainstream public primary schools with special reference to availability of support staff.

Table 5: Availability of specialised staff

Staff available at schools as part of the inclusive education system	
Profession	Frequency and Column %
Occupational therapist	15 (5.8)
Speech therapist /audio therapist	25 (9.6)
Class aids	25 (9.6)
Psychologists	10 (3.9)
Remedial/Special teacher	61 (23.6)
Social worker	50 (19.3)
Educational psychologist	62 (23.9)
Other specialists	11 (4.3)
Total	259

Interpretation of results

Remedial or special-needs teachers, educational psychologists and social workers are the professional groups that constitute the specialised support most often used as inclusive education support staff in Gauteng's public primary schools.

Qualitative responses corroborated the quantitative research, showing that the vast majority of occupational therapists and psychologists are paid by parents (61% and 48% respectively), while remedial teachers and social workers are paid chiefly by the state (96% and 100%). Speech therapists' salaries are funded by a combination of the state, parents and other sources.

8. Summary and Recommendations

Based on the following summary of the findings of the statistical analysis, the following suggestions are recommended:

The study identified generally-occurring specific barriers, such as the insecurity experienced by learners on the way to and from school. The percentage of learners who experience this type of stress is disturbingly high and the researcher believes that the schools' institutional-level support teams (particularly in districts where they are aware of the problem) should form teams of learners (a "buddy" system) that, as a group and at fixed times, could accompany learners in a specific residential area to and from school. This activity should take place under the guidance of a leader learner who would then be responsible for protecting younger learners within the group.

Unreasonably large class sizes were also indicated as pertinent, external obstacles or barriers within the inclusive education policy. The study of classrooms in Gauteng's public primary schools indicates an average ranging from 50 to 60 learners per class, of whom a large proportion were identified as learners with barriers to learning. The literature refers to optimal class sizes in the region of 20 learners, California being cited as having a limit of only 20 learners per class to ensure effective teaching (<http://k6educators.about.com/b/2009/03/06/what-is-the-ideal-class-size-and-what-would-it-mean-for-education.htm>). This overcrowding of class sizes, in conjunction with the high unemployment figure/rate among school leavers, could possibly be addressed by focusing on the already existing practice in schools of making class assistants available to teachers. These class assistants would then serve as a support corps, thus relieving teachers' workload and allowing them to concentrate on their main task of teaching. This support corps could then receive accredited (or certified) in-service training from a unit in the Department of Education to assist with supporting learners with barriers to learning in the classroom. School leavers could constitute an ideal "feeder" system for the teacher support corps. The recruits would then receive in-service training in the handling of learners with specific barriers to learning, and obtain certificates qualifying them as

teacher assistants from the Department of Education. The Department of Education could make use of the specialised services of educational psychologists, occupational therapists, physiotherapists and speech therapists as trainers and corps supporters. A support corps of this kind would be able to give the implementation of inclusive education a massive kick-start and help to fill a gap indicated by the research in the study, which is that district support teams do not have the human resources to reach all schools. (Compare table 3 section 3.6 in this regard.)

As already mentioned, the research results of the current study have shown that the proportion of learners with barriers to learning to learners per class is very high (cf. table 2 section 2.1 in this regard). Thus the findings imply unequivocally that specialised inclusive education support is essential (Landbrook 2009:39). The ultimate research aim of the study was to determine whether the support systems and specialised services within inclusive education were actually in place and were functioning effectively within the Gauteng public primary school education system. The findings of the study (cf. tables 3, 4 and 5) show that the public primary school dispensation in Gauteng is making gradual progress in this area. Encouraging results show that most of the mainstream public primary schools in Gauteng have shown much progress with the implementation of inclusive education. These results show an outstanding concurrence with the release of the Department of Education's Inclusive Education Policy (Department of Education 2009) and indicate that the vision of the South African Department of Education for inclusive education is on the right course.

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