# CHAPTER 6

## HOW WELL HAVE WE HEARD?
## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

*"When does treating people differently emphasize their differences and stigmatize or hinder them on that basis? And when does treating people the same become insensitive to their difference and stigmatize or hinder them on that basis?"*
*(Minow, 1990 in Zollers & Yu, 1998:744)*

## 6.1 ORIENTATION

In line with an interpretivist approach, Chapter 6 does not propose to give singular answers to research questions, nor does it propose to give final answers to research questions. Some answers were derived from the analysis, synthesis and integration of the available quantitative and qualitative data, and were reflected, where possible, against some of the known theories and suggestions in the literature to either assess the credibility of the data, or to extend, confirm or contradict the theories. Where literature was scarce, or not available, the data have been taken to speak for themselves. The data do not claim to be all-representative, or applicable to all situations for aeons to come. But, by the rigorous application of multiple research methods, the data can claim to represent at least five schools in respect of their learners' academic self-concept (ASC), including the ASC of their learners with hearing impairment (HI), at this point in time in South Africa, even though the elusive 'singular reality' of the ASC of learners with HI can never be reached, but only approximated by the different methods.

## 6.2 SUMMARY

Chapter 1 looked at a number of important issues in respect of inclusive education and participation, special needs and ASC, and orientated the reader towards understanding the relevance, aim and importance of the research. The aim was to investigate the ASC of learners with HI (as an example of a barrier to learning and participation), in special and full-service inclusion school contexts. It was argued that understanding the ASC of Grade Seven learners with HI in different school contexts, would contribute to an understanding of whether and how the ASC of Grade Seven learners was indicative of the success of the conversion of primary schools to full-service inclusion schools for Grade Seven learners, and eventually

possibly for other school grades. It was envisaged that the findings of the research might provide educationists, educational leaders, managers, and educators generally, with information as to what was required to improve the conversion of schools to full-service inclusion schools, and to minimise an inappropriate implementation of the South African inclusive education and participation policy from casting up additional academic, social and emotional barriers before thousands of learners with impairments already experiencing barriers to their learning and participation. The main research question, therefore, was, *What is the academic self-concept of Grade Seven learners with hearing impairment in the contexts of special and full-service inclusion schools*? Three sub-questions were posed. Firstly, in special and full-service inclusion schools, which role does HI play in the ASC of Grade Seven learners? Secondly, what outcome(s) related to the ASC of the Grade Seven learner with HI could be regarded as indicative of successful conversion of primary schools to full-service inclusion schools? And thirdly, what guidelines could emerge to improve the conversion of primary schools to full-service inclusion schools in order to maintain and/or enhance the ASC of learners experiencing HI specifically, and barriers to learning and participation (BLP) generally?

In Chapter 2, dealing mainly with issues of context, the backdrop for understanding the ASC of learners with HI in special and full-service school contexts was cast wide in order to reckon with the influences of macro-, meso- and microsystems on the ASC of learners with HI. The bio-ecological perspective of Bronfenbrenner (1979, 1986) set the tone for a multi-systemic, multifaceted and multifactorial approach to BLP, culminating in a focused contemplation of HI. In addition, the asset-based approach drew the attention to the viewpoint that capacities, skills and assets within the systems could, and should, be accessed when dealing with BLP generally, and HI particularly. Five different viewpoints on effective learning environments for learners with impairments were presented, namely *exclusion*, *segregation*, *integration*, *mainstreaming* and *inclusion.* This was followed by consideration of the South African legislation and policy documents which lay the foundation for the South African solution to effective learning environments, namely inclusive education, as contained in the Education White Paper 6 (EWP 6).

A conceptual exploration was conducted in Chapter 3, from which the content and structure of the Academic Self-concept Questionnaire (ASCQ) was construed. The ASCQ originated from a contemplation of the theoretical underpinnings of self-concept, as found in a synthesis of the structure and dynamics of the self-concept. For the structure, at least five possible self-concept models were considered before selecting the hierarchical self-concept model for the purposes of the study. The ASC, also in terms of a collective consciousness, was

subsequently considered. The dynamics of the self-concept then led to a review of the development and change of the (academic) self-concept, reiterating the involvement of more than the individual system. Finally, the (academic) self-concept of learners with HI was briefly contemplated.

Research methodological issues were looked at in Chapter 4. The explanation of the interpretivist paradigm contained basic tenets that guide action and feelings about the ASC of learners with HI and how the ASC of learners with HI should be understood and studied accordingly. This led to a review of the ways in which the ASC could be probed and the suitability thereof for Grade Seven learners, also those with HI, which was followed by developing a multi-method and mixed method research design which made provision for a pilot study, to ensure the robustness of the methods. The results of the pilot study suggested that not all Grade Seven learners had the vocabulary, even in their mother tongue, to distinguish among meanings of words representing frequency categories, such as *never*, *seldom*, *sometimes*, *often* and *always*. The pilot study also indicated that a standard response sequence compared well to a response sequence where the neutral response option was placed separately. Finally, the means, item-total correlations and alphas for each item on each dimension of the pilot instrument were scrutinised to determine which items should be included in the final ASCQ. All relevant results from the pilot study were incorporated into the final version of the ASCQ. Cognisance was taken of the requirements that validity and credibility, and reliability and trustworthiness, posed to the research. The ways in which differences in language and culture could impose on validity and reliability, and possible ways to deal with such differences, were discussed. The methodological principles and processes underpinning each of the methods in the research design were considered, before describing the ethical principles adhered to during the research. Appendices provide elucidating information for most of the issues discussed in Chapter 4.

The results and findings of the investigation into the ASC of learners with HI in special and full-service schools are written up in Chapter 5. The relevant results and findings in respect of the sample, the ASCQ, moderator effects, and case studies are as follows:

Concerning the sample, five schools were involved. School 1 and 2 were full-service inclusion schools, with the former being historically advantaged and the latter historically disadvantaged. School 3 was a historically advantaged special school for learners with HI. School 4 and 5 were regular schools, with the former being historically advantaged and the latter historically disadvantaged. Approximately the same number of boys (54%) and girls (46%) participated in the study. Afrikaans and non-Afrikaans speaking learners were almost

equally represented: 46% spoke Afrikaans, 30% spoke Sepedi and 24% learners spoke other indigenous languages of South Africa. Learners were almost equally distributed in historically advantaged (46%) and historically disadvantaged (54%) schools. Eight learners with HI participated in the study, of whom six were enrolled in the special school, and two, one each, in two full-service inclusion schools. Only two of the learners with HI were girls: one in one full-service school and one in the special school.

There was an extensive age range of learners in the study, with an interesting distribution across the schools: in the historically advantaged full-service and regular school there were no under-age learners, and only 10% and 9% over-age learners respectively; therefore 90% and 91% of the learners respectively were within the norm-age range. In the historically disadvantaged full-service and regular school there were 17% and 30% under-age learners and 53% and 24% over-age learners respectively; therefore only 30% and 46% of the learners respectively were within the norm-age range. In the special school there were no under-age learners, 18% norm-age and 82% over-age learners. Of the Afrikaans speaking learners, who were all in historically advantaged schools, 80% of the learners were in the norm-age range, as opposed to only 34% of the Sepedi learners, who were all in historically disadvantaged schools.

Concerning the ASCQ, after running a maximum-likelihood factor analysis, a one-factor solution was accepted for the general academic self-concept (GASC), first language academic self-concept (LASC) and mathematics academic self-concept (MASC). The coefficient alphas for the GASC, LASC and MASC were all in excess of 0.80, the lowest being 0.83, and all the item-total correlations of all the items on all the dimensions, except Question 16 of the LASC, exceeded the minimum criterion of 0.2. Therefore, the ASCQ was regarded as a reliable instrument to assess the ASC of Grade Seven learners, including those with HI.

Some of the moderator effects showed similar results as some other moderator effects. Learners in historically disadvantaged schools registered significantly higher means on the GASC and LASC than learners in historically advantaged schools. Learners in historically advantaged schools, however, registered slightly higher means on the MASC, even though the significance was much lower. Home language, which relates to the historicity of the schools, produced similar results. The means of the learners with different home languages differed significantly on the GASC and LASC, but not on the MASC, with means on the GASC and LASC higher in historically disadvantaged schools, where Sepedi, Zulu, Tsonga and Tswana were spoken, than in the historically advantaged schools, where only Afrikaans

was spoken. In respect of hearing, learners with no HI registered significantly higher means on the GASC and LASC than learners with HI, but not in respect of the MASC, where there was no significant difference between the means of learners with no HI and learners with HI.

Boys and girls did not have significantly different means on the GASC, LASC or MASC. The difference among the means on the GASC, LASC and MASC according to the school attended by the learners was statistically significant. The GASC and LASC were the highest in the historically disadvantaged schools, followed by the full-service and regular historically advantaged schools. The special school had the lowest GASC and LASC. The MASC fluctuated less and appeared to be independent of school.

Under-age learners had statistically significantly higher scores on the GASC and MASC than norm-age and over-age learners, and over-age learners registered significantly lower scores on the GASC and MASC than under-age and norm-age learners. There was no statistically significant difference among the three age groups in respect of LASC.

The GASC was influenced by the historicity of the schools, home language, school, hearing ability and age, but not by gender. Specifically, the GASC was statistically significantly higher in historically disadvantaged schools, higher for the speakers of African languages than for the speakers of Afrikaans, higher in School 5 and 2, higher for learners with no HI, and higher for under-age learners compared to norm-age learners and over-age learners. The LASC was statistically significantly influenced by the historicity of the schools, home language, school and hearing ability, but not by gender or age. Specifically, the LASC was higher in historically disadvantaged schools, higher among the speakers of African languages, higher in School 5 and 2, and higher for learners with no HI. The MASC seemed to be the least influenced by moderator effects: historicity of schools, school and age influenced the MASC, but not home language, gender, or hearing ability. Specifically, the MASC was higher in historically advantaged schools, low for School 2, and higher for under-age learners compared to norm-age learners, and norm-age learners compared to over-age learners.

When combining achievement data of all the participating schools, the boys achieved slightly higher marks than the girls in mathematics only. The mean achievement, first language and mathematics marks achieved by the Afrikaans-speaking learners in the historically advantaged schools were consistently much higher than the mean achievement, first language and mathematics marks achieved by the Sepedi-speaking learners in the historically disadvantaged schools. Whereas the achievement in mathematics was the

highest achievement for the Afrikaans-speaking learners, the achievement in mathematics was the lowest achievement for the Sepedi-speaking learners.

When comparing full-service schools, School 1 consistently had much higher mean achievement, first language and mathematics means than School 2. When comparing the marks achieved by the Grade Sevens in the full-service schools with the marks of the Grade Sevens in the special school, School 1 had higher mean achievement, first language and mathematics means than School 3, the special school, but School 2 had lower means than the special school.

The relevant results and findings in respect of the case studies are as follows. Hanno, a learner with severe and profound HI in School 1, the historically advantaged full-service inclusion school, wore hearing aids, and had attended a special school for learners with HI until March of his Grade Three year. He registered a GASC mean well below the mean GASC of the learners with no HI, a LASC mean only slightly lower than the LASC mean of the learners with no HI, and a MASC mean higher than that of the learners with no HI. From the projective pictures it appeared that some of Hanno's educators sometimes spoke too fast for him to follow, and that despite his high LASC, Afrikaans was hard for him. The observations in the Afrikaans class included accommodations for day-to-day situations and oral and listening exercises, question-asking behaviour by Hanno, learned helplessness or learned dependence, Hanno's lack of participation in games and his concrete understanding of language. There were several conditions in the mathematics class which might have contributed to Hanno's high MASC: the educator making sure that Hanno had heard and understood, the availability and accessibility of the educator for questions, Hanno's close proximity to the educator, a peer's supportive role in the class, the nature of the content of mathematics, the structure of the lessons, Hanno's personal motivation and a good relationship between Hanno and the mathematics educator.

Sarah was a learner with a slight and average hearing loss in School 2, a historically disadvantaged full-service inclusion school. She did not have hearing aids and, according to the educators, her speech was difficult to understand. She registered the lowest GASC and MASC of all the learners with HI in the study, but the third highest LASC of the learners with HI participating in the study. Responses obtained from the projective pictures suggested that sometimes she and the educators did not hear each other, and that she did not like to fail. As Sarah had scored only 25% for her first language, the moderately high LASC was ascribed to unrealistic self-evaluation and/or classroom factors, such as that the language of learning and teaching was only Sepedi, the educator made an effort to speak loudly enough,

the educator provided additional support in the form of worksheets, the educator tried to involve Sarah in classroom activities, and Sarah's group supported her. Classroom observations of the mathematics class showed that the mathematics educator tried to support Sarah through teaching aids and involving her in group work and classroom activities. It was also observed that his teaching style involved repetitious statements and that he tried to facilitate extra opportunities for support. He repeatedly expressed his need to be workshopped on how to deal with learners with impairment.

Isaac, James, Odette, Adrian, Claus and Paul were learners with HI in School 3, a historically advantaged special school for learners with HI. Their hearing losses ranged from slight to profound hearing losses in one, or both, ears. All had hearing aids, except Adrian. The GASCs of the learners were distributed widely, but were mostly lower than the GASC of learners with no HI. It appeared as if degree of hearing loss, age and motivation, and not school marks, contributed to the lower distribution of GASCs. Overall, the LASC of the learners with HI was low, despite the Afrikaans educator providing practical tips to the learners to improve their work, helping the learners to expand their vocabulary, allowing learners to be spontaneous, addressing individual learners to make sure they had understood, repeating instructions, being flexible, and complimenting and praising them where necessary. The learners appeared divided in their opinion of the Afrikaans educator and Afrikaans as learning area. It is important to remember that their thoughts and feelings regarding the Afrikaans educator and Afrikaans as learning area were compounded by their difficulty in acquiring language and maintaining communication. The lower LASC should not and could not be attributed only to the role the Afrikaans educator played. The MASCs of the learners with HI were much higher than both their GASCs and LASCs, and compared favourably to the MASC of learners with no HI. From the observations, it appeared that a concrete approach to learning, involvement of the learners in the lesson, guidance to the correct answers, ample opportunities for asking questions, individual attention, repetition and direct instruction contributed to the high MASC of the learners with HI in the special school.

## 6.3 CONCLUSIONS IN RESPECT OF THEORY AND PRACTICE

The conclusions will firstly deal with the issue of measurement of the ASC, before addressing any of the research questions relating to the ASC. In line with the main research question and sub-questions, as posed in the summary of Chapter 1, the ASC of learners with HI in different school contexts will be addressed. Thereafter, the role HI plays in the ASC of learners with HI will be discussed, before concluding whether and how the ASC of Grade Seven learners with HI is indicative of the success of the conversion of primary schools to

full-service inclusion schools for Grade Seven learners. The conclusions will also look at guidelines emerging from the research which could improve the conversion of primary schools to full-service inclusion schools. Lastly, the conclusion will deal with some other issues which emerged from the research and which proved to be of importance.

Byrne (1996:241-243) warned that inadequate methods, the absence of instruments for specific population groups and insensitivity for cross-cultural influences were weaknesses in self-concept measurement. As accurate and trustworthy measurement of the ASC of learners with HI was considered paramount in the study, several cautionary measures were taken. Based on the recommendations of several studies (Byrne, 1996:243; Byrne *et al*., 1992:196; Wigfield & Karpathian, 1991:245) to augment self-reported self-concepts as obtained from the completion of questionnaires with other methods, projection material, and where possible, opinions of educators voiced during interviews, were used as additional ways to collect and verify data in respect of the ASC of learners. To address the absence of instruments for specific population groups, the ASCQ was developed for and piloted on the specific population groups. As far as cross-cultural influences were concerned, the development of the ASCQ in the first languages of the learners and the collaboration of a cross-cultural fieldworker were efforts to take into account the unique contexts the learners found themselves in.

The almost accidental questioning of the learners' understanding of frequency categories of time during the pilot study proved to be invaluable for future assessments in South Africa and even further afield. Instruments which rely on frequency categories of time, might benefit from rethinking what the target population knows about such categories. The assumption that Grade Seven learners in an urban environment in South Africa knew the differences among the words would undoubtedly have led to invalid results, which, in turn, would have led to invalid conclusions and a doubtful contribution to the field of knowledge and possibly fruitless or even harmful recommendations for practice. The lack of certainty among Grade Seven learners, and possibly learners of other grades as well, in respect of the meanings of the words commonly used to denote frequency categories of time has serious implications for curricular assessment, assessment in general, the validity of assessment, the future of learners when recommendations are made on the grounds of invalid results, and the development and translation of multilingual instruments. The educational psychologist should be aware of the possibilities for misunderstanding if the educational psychologist and/or the client are not proficient in the same language.

Contemplating the main research question of the study, the research has not suggested a single and straightforward answer in response to the question, *What is the ASC of Grade Seven learners with HI in the contexts of special and full-service inclusion schools*? From the data it appeared as if school context in respect of full-service inclusion and special schools *per se* did not play a primary role in influencing the ASC of learners with HI, as the ASCs of the two learners with HI in different full-service schools were unrelated. In the historically advantaged full-service inclusion school, Hanno had a LASC and MASC comparable to those of the learners with no HI in his school, and higher, in each case, than all but one of the learners of the special school. His GASC, however, was only in the relatively moderate range. In the historically disadvantaged full-service inclusion school, Sarah's GASC and MASC were the lowest of all the learners with HI, although her LASC lay in the relatively moderate range. It therefore appears that placement in a full-service school was not equally beneficial to both learners with HI. In the special school, there was a wide distribution of GASCs from high to low, a general concentration of relatively low(er) LASCs, and a general concentration of relatively high MASCs, perhaps signifying some school and/or mathematics educator effect.

Given the limited number of learners with HI and schools participating in the study, conclusions cannot be generalised. It does, however, appear that Hanno's experience of success in the full-service inclusion school, based on his GASC, LASC and MASC, was co-influenced by early identification of his HI, technical support in the form of hearing aids, early exposure to specialised education in the special school and the support and accommodations made by the educators. In stark contrast to Hanno, Sarah's sense of failure to bloom in the full-service inclusion school, based on her GASC, LASC and MASC, appeared to be co-influenced by the late identification of her HI, lack of technical support, lack of exposure to early specialised education, and lack of academic support and effective accommodations by the educators. The possibility of intellectual impairment complicating her progress in the school cannot be ignored, but also cannot be offered as a reason for her lack of progress, as the validity of the results of the intelligence test is under suspicion.

The research was also directed by three sub-questions. The first sub-question related to the role HI plays in the ASC of Grade Seven learners in special and full-service inclusion schools. In the special school, the GASCs of the learners with HI were widely distributed, and did not always appear to be related to the learners' mean achievement marks across all the learning areas. The GASC did, however, seem to relate to the degree of hearing loss experienced by the learners: if the hearing loss was small to moderate, or located in only one ear, it appeared that those learners were able to attain a higher GASC; if the hearing loss

was serious and in both ears, the learners appeared to have a lower GASC. Serious hearing loss could also be related to the age of the learners, with learners with a serious hearing loss being older than the other learners; therefore, age and degree of hearing loss probably played a role in the GASC of learners with HI in the special school. However, despite serious hearing loss and being older than the other learners in his class, Hanno was still able to attain a moderate GASC, suggesting that learners with HI in full-service inclusion schools might evaluate themselves more favourably than learners in the special school; however, in the other full-service inclusion school, Sarah, whose hearing loss was less severe than Hanno's, but who was also older than her peers, and who had a low GASC, draws attention to the fact that not all learners with HI fare well in full-service inclusion schools. Several prerequisites appear to be operant in determining the success of the inclusion of learners with HI. These prerequisites will be dealt with shortly as guidelines for the conversion of schools to full-service schools, in answer to the third sub-question.

Despite the specialised support in the special school, all but Odette had a moderate to low LASC. Therefore, it appears that HI greatly influenced the LASC of the learners in the special school. As Hanno's LASC was much higher than the LASC generally of the learners in the special school, more than only HI seems to have contributed to the moderate to low LASC of the learners in the special school. The influence of the Afrikaans educator at the special school, the history of teaching language at the special school and limitations to the data because of the small sample size should also be considered when trying to understand the low LASC at the special school. As Hanno had severe and profound hearing losses in both ears, and a high LASC, the degree of hearing loss does not appear equally to influence the LASC of all learners with HI. Hanno's first language educator thought that Hanno's LASC was unrealistic, but that his LASC enabled him to cope well in the class. Sarah's LASC was also thought to be unrealistically high, but without the benefit that she was coping well in the first language class.

The MASC of the learners with HI in the special school was high. Disregarding the specialised nature of their mathematics instruction, one is tempted to conclude that it appears as if HI does not play a role in the MASC of the learners with HI in the special school, but Hanno, in School 1, was also greatly supported by the mathematics educator, and had a high MASC. It would therefore perhaps be more accurate to conclude that, provided that there is adequate and effective support for the learners with HI, HI does not seem to play a strong role in the MASC of learners with HI. Some evidence for such a line of thought can be found in the MASC of Sarah, who did not receive effective support or

accommodations in mathematics, and had a low MASC. (School 2 had the lowest MASC of all the schools in the study.)

The second sub-question addressed the outcome(s) related to the ASC of the Grade Seven learner with HI, which could be regarded as indicative of the successful conversion of primary schools to full-service inclusion schools. Given the premise that the ASC of learners with no HI can be regarded as the norm in full-service inclusion schools, one could tentatively suggest, based on Hanno' ASC profile, that when the ASC of a learner with HI compares favourably with the mean ASC of learners with no HI in a class, successful conversion has taken place. Specifically, a GASC and LASC which are moderately lower than the GASC and LASC of the learners with no HI are acceptable, and a MASC that is similar to the MASC of the learners with no HI is acceptable.

The quote at the beginning of the chapter reflects some of the confusion and conflict that educationists and educators contend with on a theoretical and practical level in schools, when dealing with the many faces of diversity, as prevalent in full-service inclusion schools. The third sub-question addressed guidelines that emerge from the research, to improve the conversion of primary schools to full-service inclusion schools in order to maintain and/or enhance the ASC of learners experiencing HI specifically, and BLP generally. When suggesting guidelines, the temptation is to give a bulleted list of do's and don'ts. But context reigns supreme: what works in one school or context would not necessarily work in another. For example, one could not expect the principal of School 2 to use scarce resources to decrease the class size of the one class containing a learner with HI, when many of the other classes contain learners with other impairments, and many learners are most basically in need of food, clothes and other basic amenities. It might be wise to note that some schools have the capacity for implementing inclusive education policy, but not the readiness. Other schools are ready, but lack capacity. Ideally, guidelines would work best in schools which have both the capacity and the readiness.

In 5.7 several factors, mostly from the qualitative data, which might have influenced the ASC of learners with HI, were loosely ordered into categories of effectiveness, or possible influence; hence guidelines to improve the conversion of regular schools to full-service inclusion schools could be construed from these. Based on the ASCs of the learners with HI in the study (refer to 5.6), the 'categories of effectiveness' relating to the Department of Education, type of schools, principals' commitment to inclusive education, learning areas, peer and adult support, and personal disposition apparently contributed indecisively to the ASC of learners with HI. Other 'categories of effectiveness' relate to the resources available

to a school and the resourcefulness of principals, which probably influenced the ASC of learners with HI. Lastly, 'categories of effectiveness' relating to early identification of HI, appropriate technical support, early specialised learning support, and the accessibility and knowledge of educators appeared to contribute decisively to the ASC of learners with HI. Even though its contribution to the ASC of learners with HI was vague, the Department of Education cannot be excluded as a main role player in the conversion of schools, especially as the Department initiated the conversion; therefore, the Department of Education, the principals and the educators must be regarded as main role players. Of these three, the educators appear to bear the brunt of the conversion as they ultimately have to deal with the learners with impairment in their classes. Of course it is acknowledged that educators cannot work in isolation and that they need support from their principals, the Department of Education and parents; and that the lack of, or availability of, resources can easily render the task of accommodating learners with HI complicated to a greater or lesser degree.

The Department of Education has the ongoing responsibility to explain its inclusive education and participation policy to the educators. In School 2, for example, the educators appeared to try hard to include Sarah, but little true participation by Sarah in the learning content was observed. The other learners with HI in the study were able to participate actively in the classrooms. It even merits consideration whether the Department has perhaps not fully thought through the essence of inclusion, namely participation itself, and in its implementation strategies perhaps got stuck in the post-apartheid euphoria of simply in principle achieving a state of no separation between people with differences. The Department's apparent reluctance to consider other schooling opportunities for Sarah supports this line of speculation: the agenda seems to be to include learners, no matter the cost to the individual, for the sake of inclusion, and not for optimal participation.

It is thought provoking to note that it was not training in the principles of inclusive education which had made some educators deal more successfully with learners with HI than others. It was educators who consciously and consistently applied the principles of teaching a specific learning area and assessment, and who understood the specific academic needs of the learners with HI. They were specialists in their respective fields of teaching. They apparently had acquired their expertise through their training, attendance of courses on HI (the educators in the special school), reflection on experience, and teaching. Therefore, most guidelines to improve the conversion of primary schools to full-service inclusion schools would certainly centre on equipping and empowering educators.

In line with the need '*to be workshopped*' voiced by some of the educators, the Department may need to put much effort into training the educators in full-service schools. An understanding that most educators in South Africa grew up in an education system where learners with impairments were separated from others in special schools or classes, emphasises the importance of careful explanation of alternative systems and ways of educating learners (based on Carrington & Elkins, 2002: 2). The content and presentation of the training workshops evidently need to be thought through more carefully. One of the educators was of the opinion that, although the Department of Education had presented courses on how to deal with learners who posed various challenges, the courses lacked specific content and did not contribute to the knowledge or skill base of the educators. She felt that she herself knew more than the presenters had done and could have presented the course(s) herself. The Department should then realise that it does not have to, and cannot, take responsibility for imparting knowledge in respect of learners with HI. The educators and staff of the special schools, and at some full-service schools, appear to be by far more experienced than most officials from the education support services.

Ironically, a workshop led by the Gauteng Department of Education (2000b) stated that educators '*were not fully enabled'*. If they had been, they would have been able to cope with all the demands put to them. Educators therefore have specific in-service training needs. From observation, it seems that educators need to be made aware of practical day-to-day arrangements to be made for learners with impairment, accommodations to their teaching and assessment, how to involve learners in the classroom activities, and how to facilitate peer support. The workshops should not cover general issues, but should deal with a specific impairment or need for support. General accommodations, such as using teacher aids, appear to have less than general effect. Knowledge and skills of impairment and support should obviously be acquired at tertiary level by new educators, to lessen the burden on in-service training.

It does not appear as if the implementation of inclusive education policy is without mishap. Incongruencies in policy and practice not only contribute to incorrect assumptions of inclusive education, but also harm the future of learners. Educational psychologists, in collaboration with the Department, can play a valuable role in the implementation of inclusive education by 'translating' the policy requirements to feasible practice, so that educators, learners and even parents can benefit from the policy. The preventative role that educational psychologists can play and the importance of macro level involvement in policy implementation in schools are once again emphasised by the findings of the study.

The Department also needs to prevent unsynchronised functioning among the systems involved from casting up additional barriers to learners with HI. Designating certain schools as full-service schools and encouraging parents to enrol learners with HI in full-service schools should not be done unless the necessary support can be given by various other departments, such as the Departments of Health and Social Development. The support entails a range of interventions which include determining the learners' needs, such as assessing the degree of hearing loss, evaluating and supplying hearing aids, arranging for ear operations, preferential seating in the classroom, visual exposition of content, arranging for government grants, or even placement in a special school. Although Sarah had been on the 2003 list for learners in need of assistive devices, and perhaps even on lists of previous years, she had not received hearing aids. The visits to the Ear, Nose and Throat (ENT) Clinic had been undertaken on the initiative of the mother. It is obvious that resources are a problem, as many other learners also await assistive devices, for example crutches, spectacles, wheelchairs and prostheses. The possible harm[1] done to learners' lives when promises appear empty, however, is simply too great for the Department of Education to continue with inclusion for the mere sake of following policy. It is ironic that the EWP 6 allows for the existence of special schools, and acknowledges that some forms of impairment require support in special schools, or resource centres, but that the officials apparently are less willing to use the resources of special schools. When deciding on whether placement in a full-service school would be the most effective learning environment for learners with HI, the data tentatively suggest that learners whose HI was identified early, who had received appropriate technical support and who had had exposure to early specialised learning support may benefit more from eventual placement in full-service schools. Once again, it seems that learners whose parents have access to resources, be it sufficient finances or good medical aid funds, also have access to more opportunities in life.

An issue of real concern emerged from the sampling process. Appendix A describes the almost futile search for Grade Seven learners with HI to participate in the study. The difficulty in locating the learners with HI might on the one hand be confirmation of the success of the inclusive education and participation policy: learners are not labelled according to their impairment, but treated as other learners with no impairment. On the other hand, learners with HI have specific academic support needs, and failure to meet the needs can have detrimental effects on their school careers and academic progress, as Sarah is experiencing. There is a tendency to identify learners with impairment only according to their needs for support (Department of Education, 2002:19), but challenges within the education

[1] Please refer to the Epilogue.

system would seem to nullify the benefits of such an identification system. Appendix A2 mentions that an official list of learners in need of assistive devices (for example hearing aids) was scrutinised for possible participation in the study. Seven learners were found who met the sampling criteria, but further investigation revealed that they did not require the devices anymore. The fact that none of the seven learners who had applied for assistive devices in 2002 seemed to require any devices during 2003, gives rise to several concerns. Firstly, it appears as if the educators, who had compiled the list, had experienced difficulty in correctly identifying HI. An obvious related concern is whether other barriers of impairment can be correctly identified. It can also be questioned whether it is the task of the educator to identify impairment, and if so, why they are apparently so poorly equipped to deal with the task. The Education Support Services should perhaps rethink its role regarding learners who become noticeable because of their behaviour. The fact that educators incorrectly identified some learners with HI may indicate that some educators tend to look for reasons for the poor performance of learners within the learners themselves, and that they are perhaps not aware of the existence, influence and contribution of other BLP that are extrinsic to the learners. The Department of Education has still to do much advocacy in respect of understanding learner needs in context.

The mere identification of impairment is never the main purpose *per se.* Establishing the appropriate support required by the learner with an impairment should always be the purpose of identification, which leads to the second concern. The learners who were identified on the list for assistive devices noticeably required some educational support, but the type of support required, was misjudged. Several questions come to mind: What did those learners really require to fully participate in the education? When and how would their real needs for support be established? How many other learners in schools experience barriers to their learning and participation but are inappropriately supported, or even remain unsupported? In other words, an incorrect identification of the support required by the learners on the list may also be applicable to learners not on the list.

A third concern is the time, money and human resources that would probably be spent to assess the hearing ability of the learners on the list, without reaching those learners who could really benefit from hearing aids. The poignant question begging an answer is, where the learners are who require learning support because of their HI. Statistics regarding the prevalence of HI vary. In the study, close to 1000 Grade Seven learners[2] were targeted

[2] The final five participating schools had approximately the following number of Grade Seven learners: School 1: 130, School 2: 240, School 3: 11, School 4:140, and School 5: 160. Other schools that were also consulted had the following number of learners: School A: 140, School B: 120, School C: 80;

through consultations with schools. Only two learners with HI were found (0.2% of 1000). Given that South Africa is a developing country where a large portion of its population is much more prone to debilitating diseases and lack of proper medical care than the population from developed countries, it is highly likely that the prevalence of HI is higher than 0.2%[3]. It should be considered whether the learners with HI are enrolled in schools, but remain unnoticed, or whether they drop out of school at an early age, or whether they do not go to school at all. It seems that many learners could benefit greatly if educators were better acquainted with the procedures of identification of HI, and/or health services could regularly assess the hearing ability of primary school learners. The implementation of early childhood intervention programmes would obviously support learners with HI from a very early age, thereby preventing learning breakdown and promoting optimal development of potential.

The important role that special schools can play in providing learners with HI with effective language and coping skills cannot be ignored. Hanno seemed to have benefited greatly from the early specialised education at the special school. The data suggest that early exposure to such specialised support might enable learners with HI to cope more successfully in full-service inclusion schools than would have been the case without the support, as Sarah's case shows. The late chairperson of the Deaf Federation of South Africa (DEAFSA), Dr Elsabé Smuts, held the conviction that learners with HI benefited when placed in a special school during their early school years, before attending a regular or full-service school. When learners with HI started out in regular or full-service schools, they usually experienced failure because of their inability to keep up with the language demands of the school; therefore, the Department of Education should perhaps consider expanding the capacity of special schools for learners with HI during the formative years. The educators at the special schools possess an immeasurable amount of expertise in respect of supporting learners with HI academically, socially and emotionally. Educators from other schools could greatly benefit if these specialist educators could share experiences and suggest practical day-to-day arrangements, accommodations for teaching and assessment, ideas for class participation and effective ways to use peers for support.

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School D: 120; School E: 120. The total number of learners involved in the process of identifying schools was in excess of 1000.

[3] It has been estimated that 10% of the South African population contend with impairments, and that 3.5% of this 10% of the population (0.35%) have some degree of hearing loss (The Centre for Deaf Studies, n.d.: on-line doc.), which implies that three to four people in 1000 people contend with HI. Applied to the schools consulted, at least three to four learners with HI should have been found. The possible number of learners with HI drastically rises in the light of Donald *et al.*'s (1997:69) estimate that much more than 10% of South Africa's learners are in need of special support. This line of speculation is supported by findings in 2.6.1 that the census recorded that 0.94% of the South African population had HI (SignGenius, n.d.: on-line doc.), thereby moving the upper-limit of learners with HI to be found to at least ten.

The lack of overall support from the data for the Big-fish-little-pond Effect (BFLPE) (refer to 3.8.1) casts further doubt on the applicability of the BFLPE to learners experiencing HI and BLP. Briefly, the BFLPE predicts that, for two learners with the same abilities, the learner in the academically better school will have a lower ASC than the other learner (Strein, 1993:280), since the learners of the academically better school, with whom the learner compares his or her academic abilities, do work of the same or higher standard than he or she does. An assumption based on the BFLPE is that transfer of a learner with HI from a special school to a regular (or full-service) school, would lead to a lower ASC. The ASCs of Hanno, however, contradict the BFLPE as he registered ASC means higher than most of the learners in the special school. Sarah's ASCs, however, support the BFLPE as her GASC and MASC were lower than the mean GASC and MASC in the special school, even though School 2 did not necessarily have a higher standard than School 3. The basic assumption of the BFLPE, that learners form their academic self-concepts chiefly by comparing their academic achievements with those of other learners in their class or school, is regarded as too simplistic to explain differences in ASC. Other influences, such as feedback from educators, parents and peers, previous experiences, and expectations of the learners, parents and educators, should also be considered.

## 6.4 LIMITATIONS OF THE RESEARCH

By knowing the limitations of the research, the value of the conclusions and the extent of applicability of the findings and conclusions to other samples and populations can be assessed. The study distinguishes between functional and accidental limitations. Functional limitations are inherently part of the research design, if recognised can be made to contribute to the validity and reliability of the study, and, as such, paradoxically can be regarded as strong points in the research. Accidental limitations are oversights in the research process which endanger the validity and reliability of the study. On a more positive note, discussion of the limitations will be followed by recommendations for future research. Some of the recommendations logically flow from the discussion of the limitations and others have originated from the conclusions.

Limitations in the study centre mainly on limitations that the research design brings. An attempt was made to limit variables in the research; therefore, only one district and only Grade Seven learners were involved, and only HI as a BLP was selected. By limiting the variables, the data in respect of the ASC of Grade Seven learners with HI were cleansed as far as possible from the confounding influences of other variables; however, variables which

could also have influenced the ASC of learners with HI were thus not reckoned with. Some of the variables that have come into play by limiting the research to a single district relate to other interpretations and implementations of the inclusive education and participation policy by other districts, other educator in-service training programmes, other socio-economic contexts, other resources available to the schools and districts, and other (and more) schools representing the special and full-service school contexts in South Africa. Although the sampling of full-service schools in contrasting socio-economic contexts was a deliberate attempt to incorporate more than one socio-economic context, the study, for example, only involved urban schools and not rural schools, where historically disadvantaged schools apparently have even less resources than their counterparts in cities. The co-ordinator of the Education Support Services of the selected district identified the possible full-service schools and the possible regular school counterparts for participation in the research. It might have been that familiarity with certain schools because of challenges at the schools or personal preference could have biased the identification of schools. Bias could also have crept in by an inclination to identify the best examples of full-service schools, as opposed to schools where the inclusive education policy was not implemented well at the time of the research.

Although the sample is of an acceptable size, the number of learners with HI in the sample amounted to only eight, and the different groupings of learners in the sample, such as learners in advantaged or disadvantaged contexts or learners speaking a particular language, are sometimes too small to allow for the generalisation of findings with confidence, although the findings can be extended to similar conditions. The small sample size of learners with HI, however, made possible the in-depth qualitative investigation of the dynamics of the ASC. The strong emphasis the study has placed on context per implication limits the generalisation of the findings to other populations with different contexts, but also makes the available results and findings more credible and trustworthy in respect of the particular contexts in which the work was done.

Another functional limitation of the research design addresses the role of the researcher as observer in the classroom. Section 5.6 mentioned that it might have been possible that the credibility and trustworthiness of some of the observations were tainted by the presence of the researcher in the classroom. As the credibility and trustworthiness of the observations were verified by most of the educators, it is argued that the value of observation of the dynamics of the ASC of learners with HI surpassed the possible detrimental effects of the influence of the researcher in the classroom.

Another limitation, an accidental limitation, centres on the oversight during the pilot study when the incorrect Sepedi option of *never* was chosen for the ASCQ, as explained in 4.9. Fortunately, both the chosen option and the correct option were understood by at least two thirds of the learners, indicating that both words were relatively well known. Moreover, the correct option was considered to be more of a slang expression than the chosen option. Additionally, in contrast to the pilot study which tried to determine the most appropriate frequency categories of time and therefore contained no explanations, the administration of the ASCQ specifically included an explanation of the words used as frequency categories, which might have countered some of the confusion in respect of the meanings of the words.

## 6.5 RECOMMENDATIONS FOR FUTURE RESEARCH

An obvious recommendation is to redo the pilot study to determine which Sepedi word represents the *never* response the best. In redoing the pilot study, the investigation could also be extended: As some of the results implied that the learners' choice of word might possibly have been a function of the other words in the set, the final version of words representing the frequency categories of time selected by the learners should be incorporated in another round of sorting by the learners. By doing this, one can verify that the selected words are indeed understood best by the learners and indeed represent the categories they are supposed to represent; therefore, the selected words would cause the least confusion and would be the most appropriate to validly reflect the learners' stance in respect of the construct of the assessment instrument. Until such an investigation has been done, serious note must be taken of the risk of doubtful validity and reliability of measuring instruments where frequency categories are used in indigenous languages in general, and in the ASCQ specifically. The age groups for which the frequency categories of time create confusion should furthermore be established, for example whether or not learners in the secondary school or tertiary institutions, or adults in the place of work understand the frequency categories. The advantage in reliability of a standard response sequence, or one where the neutral option is placed separately, has not been established conclusively, especially not for learners with HI (refer to 4.9.3). By replicating the pilot study, or in another study, using the standard and the changed response sequence, clarity in this regard may be found.

Another obvious recommendation for further research is to replicate the main study with a bigger sample size, especially with more learners with HI, and to replicate of the study with other impairments. To fully understand the impact of inclusive education and participation on the learner, other dimensions of the self-concept, such as the social, emotional and physical

self-concepts of learners with impairments, should also be investigated. The difference in the LASC and MASC of learners with HI gives rise to questions concerning the ASC in other learning areas, especially since the GASC appeared to be lower than the LASC and MASC for some learners with HI. Learners in other grades should also be involved. The study suggested that some learners with HI could benefit from placement in a special school during the early school years. The study focused on learners in the last year of primary school, as the EWP 6 is first targeting primary schools in the conversion process, but it remains unknown how learners with impairment would fare in full-service inclusion secondary schools in South Africa, especially in the Further Education and Training (FET) band. Many of the current learners with HI, and other impairments, in full-service primary schools may opt for placement in full-service secondary schools. Timely research regarding placement at a full-service secondary school during the pilot study of the South African conversion of some schools may be of benefit to future secondary school learners with impairment. Related to the issue of inclusion of learners with HI would be the effect of inclusion on learners with no HI, or no impairment, although some data already exist in this regard, as the nature of inclusion relates to all learners and not only those with impairment.

The issue of early identification of HI and other impairments needs constant attention in research in South Africa. It is stated once more that the earliest identification of impairment is required to render effective support, and not to label learners. As it was found that access to resources seem to contribute to higher ASCs, the issue of the availability, accessibility and mobilisation of resources in historically disadvantaged contexts especially should be researched. Questions to consider are what types of support require resources as a prerequisite and what can be done without resources. Linked to the topic of resourceful utilisation of resources, or assets, is the question of the (reflective) practice of the educators: why some educators are more successful than others in accommodating learners with HI, and probably other impairments. It might emerge that certain impairments can be accommodated more easily than others and that, depending on the impairment, the resources available and the capacity of the educators, specific impairments should rather not be included in full-service schools.

As Hanno benefited from Pete's support, but Sarah did not seem to benefit as much from the group she was placed in, the effective use of peer support in accommodating learners with HI, and other impairments, could be researched. Ideally, peer support should not replace the educator, should be effective in supporting the learners with impairment, and should have benefits for the peers who support the learners with impairment.

The high mean ASC of the learners in the historically disadvantaged schools compared to those of the learners in the historically advantaged schools also merits further investigation, especially as there does not seem to be a correlation between the mean achievement marks achieved by the learners and their ASCs. The possible reasons contemplated in the study should be further explored.

## 6.6 CONCLUDING COMMENT

I would, in line with an interpretivist approach, like to personalise the last section of my work, thereby giving up the distance I have tried to maintain between the data and myself. By distancing myself from the data (and I am aware of some of the debates about objective and subjective involvement of the researcher with data), I have tried to be a valid and reliable research reporting instrument, or tool. In personalising this last section, I do not intend to be less valid or reliable as a tool (nor to imply that participant researchers are not credible or trustworthy), but to indicate that I have been part of this study, or that this study has been part of me, for a long time, and that the study (and participants) are worthy of personal respect as an entity that was conceived, born and nurtured to become what it wanted to become.

I concur with the conclusions that the ASC of learners with HI may be an indicator of the congruency between the inclusive education and participation policy of South Africa and its implementation in the particular context, and that its successful implementation relies heavily on the educators. They truly make the difference. The magic trick would be for the Department of Education to invest in the creation of good educators. However, I agree less with the dire circumstances Sarah finds herself in at present, in contrast to the good prospects Hanno presently has in store. Although I have resigned myself to the idea that prosperity cannot be for everyone, I often wonder how Sarah's life would have been had she been accepted in a special school. Realising that there is not a special school in the area where she grew up, unless she had gone to a hostel, foregoing a close relationship with her mother, made me realise that had the policy of inclusive education and participation been implemented earlier, and had educators been (much) better informed, and had the health services functioned better, Sarah might actually have had a better future in store. However, if Sarah, with the small figure and shy smile, who wanted to write nicely, perhaps had to be one of the victims in smoothing out the rutted track of policy implementation, then maybe many more Sarahs could benefit from her experiences in the future, even though, probably being jobless and impoverished, she would be unaware of her contribution to a macro level decision concerning inclusive education and participation policy and implementation. Still,

when the implementation of policy loses synchrony with its supposed beneficiaries, the fear of many might be realised, namely that the inclusive education and participation policy will prove to be yet another policy of the Department of Education to suffer from training, implementing and resourcing difficulties, like Curriculum 2005.

The key issue of this thesis is, *How does academic self-concept reflect the practices of inclusive education and participation in different school contexts*? The usefulness of knowledge of the state of the ASC has been established for inclusive education and participation practices. This learner-centred indicator should now be put to use to confirm, modify and/or contribute to future inclusive educational practices in South Africa.

# EPILOGUE

## WHAT HAS BECOME OF THE PARTICIPANTS?

I have been able to follow the progress of only three of the participants. Apparently Hanno's parents enrolled him in a private school for his secondary education. The classes are said to be smaller, and, therefore, he will/is likely to receive more individual attention than in a public secondary school. He also participates in provincial cricket for the deaf and hard of hearing, and has made the team.

Sarah is in the unfortunate position that she is too old for the education system to be compelled to accept her as a learner. She was conditionally transferred to Grade Eight at a regular secondary school. In Sarah's case a 'conditional transfer' implies that she did not meet the criteria to pass Grade Seven, but that she was allowed to progress to the next grade because of her age. Sarah's progress in the secondary school was exceedingly slow, and her mother was very worried. Sarah managed to achieve an average of only 18%. On request of the mother, a speech therapist was contacted to assist Sarah in her vocabulary and pronunciation, and to facilitate the making of accommodations by the school. She was assessed by a psychologist at a special school for learners with HI. The assessment took place in English and, much to her mother's dismay, Sarah was said to function at the level of a Grade One learner. Her apparent level of functioning, combined with her age (she was older than 16 years), allowed the special school to send Sarah to a special school for learners with intellectual impairment, but the mother had already been to the school, and reckoned that Sarah was able to do more than the learners at the school. Other special schools were contacted, but no school was willing to take Sarah because of her age. The schools were also filled to capacity and could not make an exception for Sarah. Sarah then attended evaluation for placement at a well-known school, under the auspices of a church, for learners who are deaf and with HI, but was told that she did not know sign language and was therefore refused admittance. Another school for learners with HI also refused Sarah, because she did not stay in the area. Finally, Sarah's mother heard about a clinic which offers skills courses every Thursday. Sarah currently attends these classes. Had Sarah been referred to a special school earlier, she probably would have been accepted, and taught communication and life skills so that she would have had a better chance to support herself in the future.

James is still at the special school for learners with HI, and is receiving support from the educational psychology student as reported. Apparently, he is making good progress.